The American Artisan
And Hardware Record

Vol. 57. No. 14. CHICAGO, APRIL 3, 1909. $2.00 Per Year.

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All Kinds of

BOLTS, RIVETS, NUTS, WASHERS, CARRIAGE FORGINGS, ETC.

Send for 1909 Catalog "R." Prices on Application.

COLUMBUS BOLT WORKS, Columbus, Ohio

GET THE LIVE LINE

"AMERICAN SEAL"

Elastic Oil Roofing Cement, Stove Putty and Asbestos Furnace Cement

For Furnaces, Stoves, Ranges and Roofs.

Jobbers write to-day for prices

THE

Wm. Connors Paint Mfg. Co.

Makers TROY, N. Y.

Western Agents: Friedly-Vochardt Co., 194 Mather St., Chicago, Ill.

Southwestern Agents: Steckhoff Supply Co., 107 N. Main St., St. Louis, Mo.

Trying to do business without advertising is like winking at a girl in the dark; you know what you are doing, but nobody else does.

MATCHLESS

Spring and Pivot Hinges, Floor Hinges, Jamb Hinges and Hardware Specialties

The Matchless Jamb Hinge is well made of either steel, brass or bronze metal, single and double acting, in all sizes and finishes—for light and heavy doors. Our goods are all of the highest quality. If your jobber cannot furnish them, write us.

LAWSON MFG. COMPANY
40 Dearborn Street, CHICAGO, ILL.

WORLD'S BEST
TUBULAR TRACK
DOOR HANGER

Our Track has the SLIDABLE Bracket, the feature that has made World's Best Hangers so popular with the Building Trade.

Write for Catalog and Prices

SAFETY DOOR HANGER CO.
Ashland, Ohio, U. S. A.

"NEVER-BREAK"
TRADE MARK

Catalog Free

"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES

WILL NOT Scale Off like cheap enamel.
WILL NOT Scorch or Burn like light fry pans and skillets.
WILL NOT Absorb Grease or Flavors like cast iron.

THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods

The Highest Grade File Made.

DELTA

TRADE MARK DELTA

DELTA FILE WORKS
CARVER FILE CO.
PHILADELPHIA, PA.

An independent organization not connected with the trust in any form, shape or manner.

FILES OF QUALITY

FILES

The File You Will Eventually Use.

PULLMAN
SASH BALANCES

Are you selling them?

IN USE EVERYWHERE

Send us your orders.

PULLMAN MFG. COMPANY
SOPHIA STREET
ROCHESTER, N. Y., U. S. A

100
Tinners' Patterns
Complete for
$1.00
Sent Postpaid on Receipt of Price
Daniel Stern
355 Dearborn Street • Chicago

CONTINENTAL COOK STOVE.

FOR

"Tall Timber" Hotels Fishing and Hunting Camps, Logging Camps, Rail Road Camps

And any place where they feed a good big bunch of people that have their appetites in good repair.

The season when people "Take to the woods" is coming. Better get fixed for it. The man that an' name the price "Right off he reel" is the man that usually ets the business.

Made with 6 cooking holes.
" " 9 " "
" " half barrel Reservoir.

Made with half barrel Ham Boiler.
Oven 30 x 24 inches.
Takes 30 inch wood. BURNS COAL

WRITE TODAY.

STOVE & RANGE CO. OF PITTSBURGH,

PITTSBURGH, PENNA.

35,000

KELSEY WARM AIR GENERATORS SOLD

We are not giving these figures showing the number of Kelseys sold since 1889 (when three heaters were sold) with any other motive than to impress you with the fact, that, although Kelseys cost more to produce than any other heaters, they have made good because of sheer merit and good results accomplished.

In competition with cheap furnaces and good furnaces and steam and hot water heaters, the Kelsey has steadily forged ahead; the sales have constantly increased and to-day more good dealers are urging Kelsey sales than ever before.

Kelsey Heating is for Homes of Any Size, and for Churches and Schools, and there's no heater or system of heating for these purposes that is better at any price.

Any Dealer who will explain the many advantages of the Kelsey will have little difficulty in selling to those people who consider comfort, health and efficiency above the matter of a low first cost.

Send Now for Our No. 5 Booklet and 112 Page Book **"Opinions"** and for **Agency Proposition.**

Kelsey Heating Company, Syracuse, N. Y.

NEW YORK, 156 Fifth Avenue

CHICAGO: Van Evera & Lewis Mfg. Co., 104-106 W. Lake St.,
James Smart Mfg. Co., BROCKVILLE, ONTARIO, Sole Makers for Canada.

It's SURE

The point is this

THE MONITOR

FIVE FRONT FLUE

RADIATOR

is the stove for you for 1909 because it is an Absolutely Sure

Business Builder and Profit Maker

It will pay you to Investigate

POINTS FOR THE DEALERS' CAREFUL CONSIDERATION:

1—Front part of the stove always the hottest.
2—A feature not to be found in any other make.
3—Heat is radiated into center of the room direct.
4—No other stove does this.
5—Fire passes down the five front flues, then under stove and up the back flue to chimney.
6—No stove ever made but the **MONITOR** did this.
7—This stove gives all the additional heat furnished by the 1683 square inches of radiating surface with the same amount of fuel other makes consume in giving less heat.
8. The **MONITOR RADIATOR** has hot air flues of 946 square inch capacity which can be conducted to heat rooms above or utilized in heating the rooms on lower floor.
9—It is handsome in appearance—a stove to be proud of.
10—BEST HEATER EVER PRODUCED.

CONVINCE YOURSELF

Write at once and secure the agency before your competitor does.

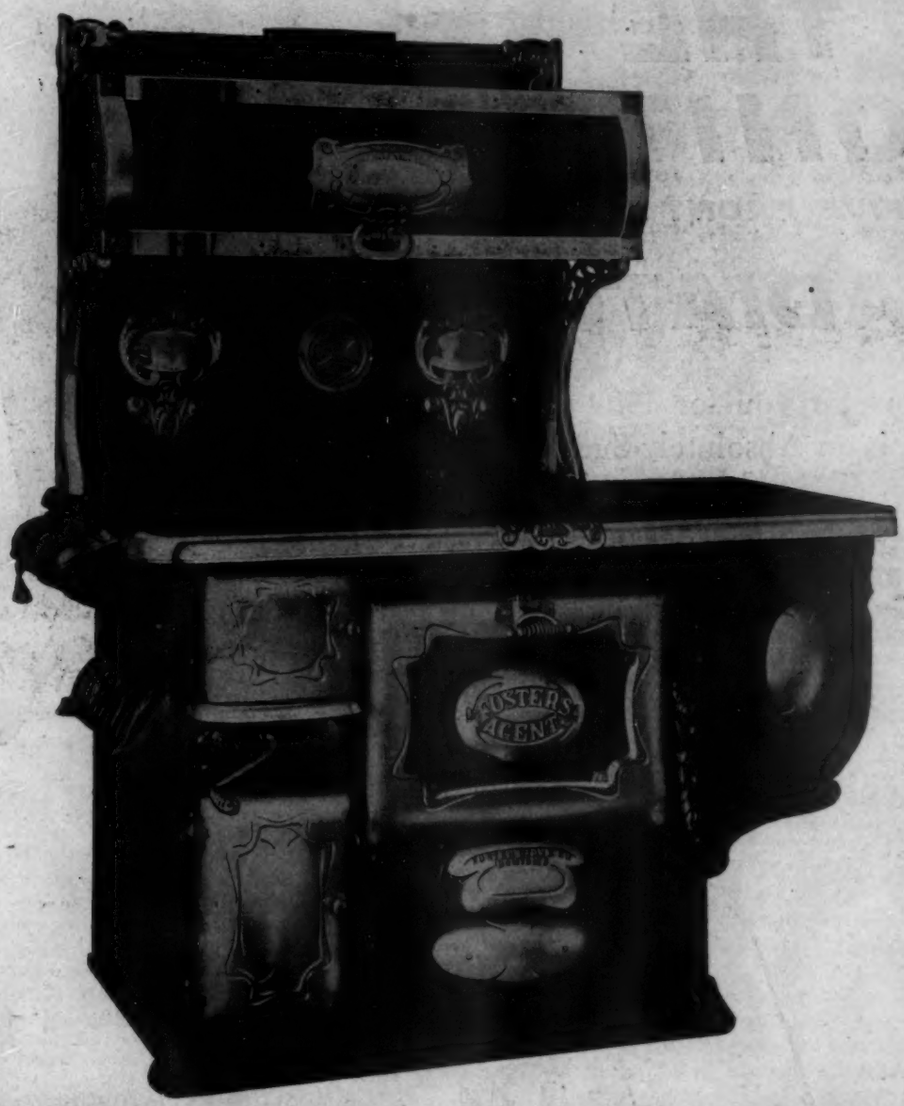
THE MONITOR STOVE & RANGE CO.

CINCINNATI, OHIO

JOBBING DISTRIBUTORS
MORLEY BROS., Saginaw, Mich.
GREAT WESTERN STOVE & REPAIR CO., Minneapolis, Minn.
MORLEY-MURPHY HARDWARE CO., Green Bay, Wis.
PAXTON & GALLAGHER CO., Omaha, Neb.

Here's an Opportunity

for progressive dealers. We want live merchants to handle our **NEW STEEL RANGE.** It is proving a winner in every community where it has been introduced and offers YOU an unusual opportunity to add a seller to your line.



FOSTER'S AGENT

is a strictly up-to-the-minute Range in every respect. The body is made of Wellsville Polished Steel, riveted closely, and the fire box is of the up-to-date kind, which permits removing any of the fire linings, including the Duplex Grates, without detaching the water front from the pressure boiler. It embodies every feature of merit in modern range construction and like all Stoves and Ranges of the **FOSTER** Line is a guaranteed satisfaction giver.

Write for Catalog of Our Complete Line.

THE FOSTER STOVE CO., IRONTON, OHIO

Western Branch:—1306 W. 8th Street, Kansas City, Mo. F. C. TUTTLE, Mgr.

THE SHERIDAN

An Honest Stove, made by Honest People, from Honest Material, by Honest Workmen, for Honest Dealers, for their Honest Customers

Two Sizes—18x18—20x20 inch ovens

ENTIRE NEW CONSTRUCTION

A High Grade Cast Range with all the qualities of Steel Ranges and the added advantages of durability of Cast Construction.

We guarantee it to be an excellent baker and perfect Water Heater. It is of Mission Design and is ornamented with a medallion portrait of Gen. Phillip Sheridan on Horseback, Nickled.

OTHER FEATURES

Balanced Drop Oven Door with two extra Supporting Lugs. The Duplex Grates can be removed by taking out one bolt in a little plate where the duplex handle comes through. The Fire Back is made in three pieces with an air chamber behind each piece which prevents it from burning or warping.

Send for Our Complete Catalog of Cooking and Heating Stoves

Sheridan Stove Manufacturing Co., Quincy, Ill.

Jewel Gasolene Stoves

¶ People often go out of their way to trade with a man in whose goods and in whose honesty they believe.

¶ For nearly 30 years Jewel Gasolene Stoves have been sold by dealers deserving such confidence.

JEWELS ALWAYS SATISFY

GEORGE M. CLARK & COMPANY
DIVISION AMERICAN STOVE COMPANY
CHICAGO

A NEW DEPARTURE
"QUICK MEAL"
GIANT BURNERS

are constructed entirely different from any other Gasoline Stove. The drip cup and sub-flame are both done away with. This simplifies the burner and prevents it from clogging up with soot or other sediment.

"QUICK MEAL" EVAPORATING STOVES have proven so thoroughly satisfactory that they are pronounced the peer of the Evaporating Gasoline Stoves by the thousands of dealers who sell them.

NOTE—"Quick Meal" Steel Ranges and "Quick Meal" Gasoline Stoves make your line complete in all seasons of the year.

RINGEN STOVE CO. DIVISION OF AMERICAN STOVE CO.

ST. LOUIS, MO.

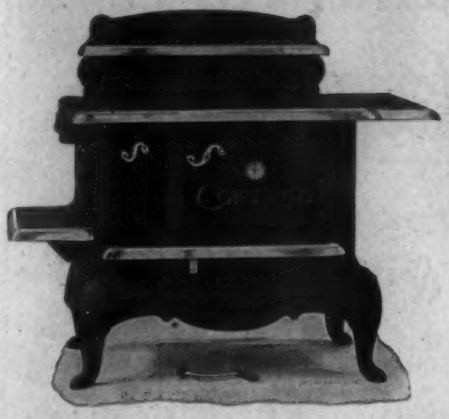
SAN FRANCISCO, CAL. Indiana St., Between 20th and 21st.

1909 CATALOGUE ON REQUEST

Munsell's Mica

EUGENE MUNSELL & CO.
NEW YORK AND CHICAGO

THE STANDARD FOR HIGH GRADE STOVES



The Greatest Coke Burning Stove
the World Ever Saw

CONTROL

IT WILL BURN COAL AS WELL

Send for Booklet for full particulars

Albany Foundry Company, Albany, N. Y.

THE ROYAL QUALITY

All that could be desired in a Range and one which offers every dealer a Royal opportunity to add a big seller to his line.

THE BODY is made of blue steel, lined with asbestos, held in place by sheet steel covering, well riveted.

THE OVEN TOP is arched. Oven bottom is well braced to prevent buckling or warping.

THE FIRE-BOX is arranged with reversible duplex grate, and hot blast linings.

THE RESERVOIR is porcelain lined.

You will like this range and so will your customers. It may be had with the new leg base or with cabinet base. Write for further particulars.

QUALITY STOVE & RANGE CO., - Belleville, Ill.

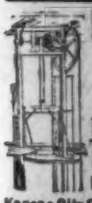
GAS RANGES
COOKERS

Get Catalog 21. Just out.

ODIN

HOT PLATES
HEATERS

ODIN STOVE MFG. CO.
ERIE, PENNA.



ELEVATORS

Improved, Quick and Easy
Rising Steam, Electric
and Hand Power.

SEND FOR CIRCULAR

KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IOWA
Kansas City Office, Water Works Bldg., Kansas City, Mo.

C. N. HOOPER, Dubuque, Ia.

Vitreous Enameling
TECHNOLOGIST

Designs, builds and starts new plants, improves quality and reduces the costs in those already established.

HERE'S A SNAP FOR WIDE-AWAKE RANGE DEALERS

I am going to sell 1000 400-lb. six-hole steel ranges finished in Japan for not over

$15.00 Each

I'll sell the ranges too, so you'd better get in line and order now. These Ranges formerly retailed at $60.00 each. Send me a carload order and get my best cash discount, or I'll give dating to firms with satisfactory credit. What better proposition can you ask for, if you have a little capital, are sufficiently enterprising, and want to make money? Do You Know there is a big demand for the "Willard" Steel Ranges because they give perfect satisfaction, and don't cost too much? Then why don't you supply them?

WILLARD STEEL RANGES

are advertised in many leading publications, and the people know them and want them. Get my prices—It means profit DOLLARS—to you. Every sale leads to another. I can sell you a better range than you can buy ANYWHERE for the money, one that cooks well and bakes evenly and perfectly, and will last a lifetime, with proper care. Tell me how many ranges you can sell annually and I will make you a very interesting proposition. Agents Wanted.

WM. G. WILLARD, No. 119 Willard Bldg., 520 Chestnut St., St. Louis, Mo.

THAT PAPER IS THE CHEAPEST WHICH BRINGS THE BEST RESULTS IN PROPORTION TO ITS RATE, NO MATTER WHAT THAT RATE MAY BE.

Prepare for the Future. We can Meet the Demand for

"Something Different"

"PERFECT" & "RICHARDSON"

FURNACES **BOILERS**

RICHARDSON & BOYNTON COMPANY

CHICAGO NEW YORK BOSTON

Dealers! This Is For You!

A new book, just published, which should have a place in every store:

THE AMERICAN ARTISAN ADVERTISING MANUAL

This is a book worth many times its original cost to any dealer who advertises. In its 278 pages there are exactly 228 illustrations of advertisements that have actually been inserted by dealers all over the country in their local papers.

The advertisements are all comprehensively criticised—their weaknesses indicated—their strong features favorably commented on to the end that any dealer by applying the countless hints and suggestions to his own copy can greatly increase the effectiveness of his advertisements.

If your advertisements are not producing the desired results, consult this book for the reason. It will not only **give** the reason, but show you how to avoid the mistakes you have been making.

Are your ads unattractive? The subject of "display" is given space throughout the book.

Is there **any** question concerning your advertising upon which you would like expert opinion? THE AMERICAN ARTISAN ADVERTISING MANUAL will supply it.

It is an ever-ready reference book and no enterprising dealer should be without it.

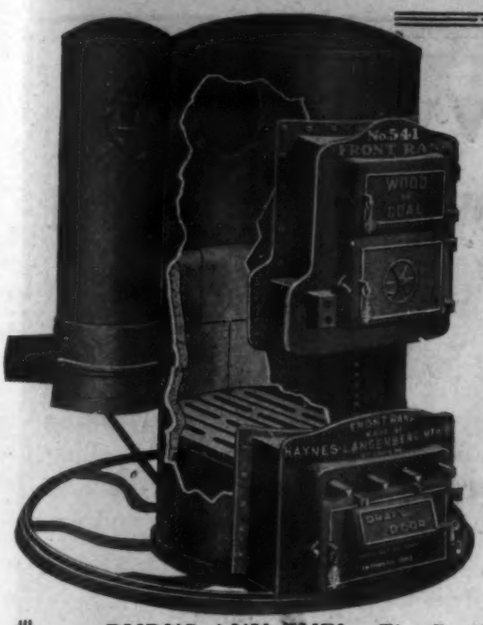
The book is elegantly gotten up in a durable manner and is cloth bound.

The price is $3.50 per copy. For sale by your book seller

OR BY

DANIEL STERN, PUBLISHER,

355 Dearborn Street Chicago, Illinois.



We Have THE Furnace

and we can give THE REASONS

THE

Front Rank Steel Furnace

Is the result of 20 years of study and improvements—there is nothing experimental about it. Every feature embodied in its construction is there because of its proven merit, and secondly—the FRONT RANK STEEL FURNACE is the standard of the world.

Here are a few of its strong features which have gone far toward making the FRONT RANK the Acme of Furnace Perfection.

ABSOLUTELY GAS TIGHT—It is made of steel—riveted like a boiler—making it absolutely free from all danger of leaking gas.

BURNS ANY FUEL—The Radiators are large—more than three times the capacity of the smoke pipe—so that even with the dirtiest coal they cannot choke up. Any kind of fuel can be burned with equal success.

NO DIRECT DRAFT—There is no direct draft to warp out of place and let the heat escape up the chimney. In the FRONT RANK the products of combustion have to pass through TWO Radiators and then the dust box before making their exit through the chimney—thus all the heat is utilized. **Send for our free catalog. We have a splendid Agency proposition to offer responsible dealers. Write us.**

HAYNES-LANGENBERG MFG. COMPANY,

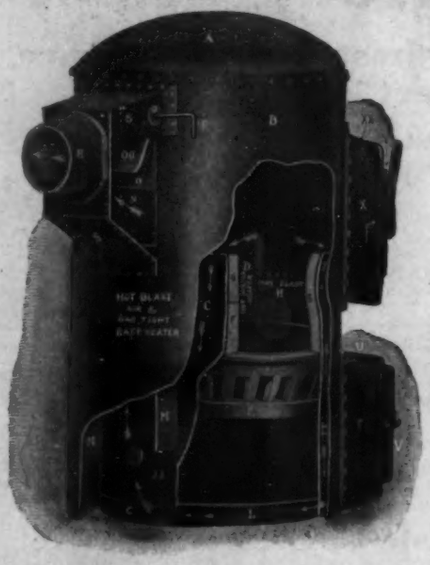
4045-4057 Forest Park Boulevard, ST. LOUIS, MO.

Are You Making Enough Money

Out of Your Furnace Business?

If not handle the

Quaker Steel Furnace



(The acme of modern scientific furnace construction)

HEAVY STEEL -- ABSOLUTELY GAS TIGHT — BASE HEATER

Burns any kind of fuel. Every ***Quaker Furnace*** installed is a permanent advertisement for more business.

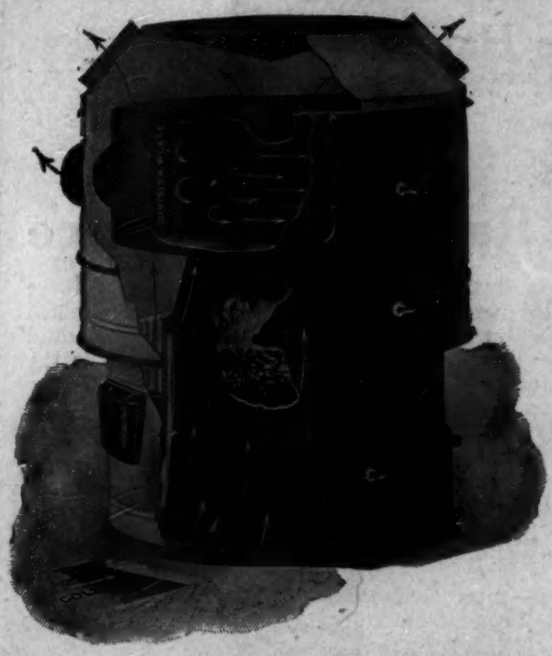
Quaker Steel Furnaces command a better price from your customers. There is always a nice profit in handling ***Quaker Furnaces.***

Let us send you the names of some of our money making dealers who put in ***Quakers*** exclusively, and who have captured the business of their town. Write them yourself. If they can make money you can.

Write for Our Catalogue. We Will Help You Sell QUAKER FURNACES. Ask Us About It.

Quaker Manufacturing Co.

DEPT. A, 40 DEARBORN STREET, CHICAGO ILL.



Boynton's Square Pot Crusader Furnace.

WHY

Are Boynton's Square Pot Furnaces

Taking So Well with the Trade?

Because they not only have talking and selling points, but because these talking and selling points are **real points of merit** that will stand back of the dealer after he has sold and installed the apparatus.

Write Us for Our Catalogue and Full Description

GET IN LINE

BOYNTON FURNACE CO.

147-149 Lake Street, CHICAGO 207-209 Water Street, NEW YORK

Faultless Scientific Heater

Showing Flue Construction, Fire Pot and Extension Flue Partitions.

The Highest Type of Furnace Perfect in Every Detail

The most severe tests for two years prove IT TO BE AN UNQUALIFIED SUCCESS

The air is heated in separate currents and can be carried long distances and to any desired part of the house. No overheated air is possible with this heater.

The number of square feet of radiating surface, compared with the grate surface, is **much greater** than in any ordinary furnace.

No other Heater of this class can be so easily mounted.

An examination will convince **you** and you can as readily convince your best class of customers.

The **exclusive agency** for this **Incomparable Heater** will be a valuable asset to any good furnace dealer.

THE GRAFF FURNACE COMPANY

208 WATER STREET, NEW YORK.

NIAGARA
Furnace

MADE ENTIRELY OF CAST IRON

Strictly modern and up-to-date. Deep and roomy ASH PIT. THE GRATE is of the triangular bar dumping type. Two-piece FIRE POT, corrugated with deep cup joints. Cast iron RADIATOR. Equipped with DUST FLUE, has LARGE, WELL FITTING DOORS and ornamental SHIELD FRONT. **They can't be made better.**

WRITE FOR CATALOG.

FOREST CITY FOUNDRY & MANUFACTURING CO.

Cleveland, Ohio

Manufacturers of the Monarch, Imperial and Combination Furnaces, Registers, Mail Boxes, etc., etc.

WHY

handle SLOW SELLING furnaces when

The Wise

agency is open to you! Write us today concerning it!

The Wise Furnace Co., Akron, O.

Clean and Tight Like a Boiler

We have erected a new factory in which we installed new 13 ton riveting machines, with which riveting is done by pressure rather than by hammering. This insures all the joints of

American Furnaces

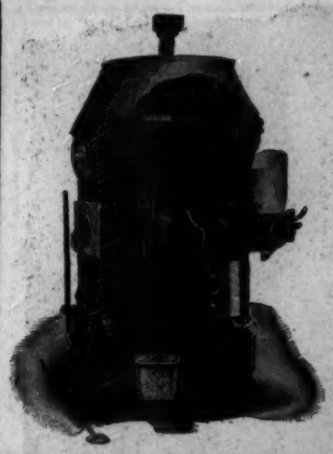
being absolutely tight

DEALERS: A Sample Furnace will be shipped to any responsible dealer in the United States and if after careful examination (we allow you 30 days) it does not prove entirely satisfactory, it can be returned at our expense.

If you are looking for something better, do not fail to investigate.

THE AMERICAN FURNACE CO.

1911-15 Pine Street. ST. LOUIS, MO



A Mt. Penn Specialty

PENN

THE PENN PERFECT
Combination Hot-Water and Hot-Air Furnace

This is the finest combination furnace made. The hot water section performing its work thoroughly without taking from the efficiency of the hot-air construction and the hot-air section in no way interfering with the elegant proficiency attained in hot-water heating.

HOT-AIR HEAT WHERE DESIRED—HOT-WATER HEAT WHERE NEEDED—all with one heating apparatus. Write for catalog.

MT. PENN STOVE WORKS

READING, PA. 111-113 N. 2nd Street, PHILADELPHIA, PA.

MONCRIEF
TOP RETURN FLUE WARM AIR
FURNACE

A strictly modern, up-to-the-times furnace that invariably gives satisfaction to every user. Here is a furnace that any dealer can stake his reputation on. Every feature of merit known to first-class furnace construction will be found in its make-up. Every part is perfect and every detail has been given careful attention.

It's THE furnace to offer your most particular customers. Write for our Catalog.

HENRY & SCHEIBLE COMPANY
825-29 Long Ave. N. W., CLEVELAND, OHIO
J. C. KIMMEL, 3314 E. 15th St., Kansas City, Mo., Western Sales Agent.

CELLULAR OVERDRAFT FIREPOT.

Found Only in Our Furnaces
THE BONNOT COMPANY ∴ CANTON, OHIO

GOOD FURNACES

nowadays are those that heat correctly, give satisfactory service, that are easy to operate, save fuel, that are made of the best materials and exclude Gas, Dust and Smoke.

Your customers demand **Good Furnaces** and you surely want to furnish them with the best. **Ours are the BEST.**

Write for complete descriptive matter which will convince you.

Walter S. Rait & Co.
211-213 Lake Street, Chicago, Ill.

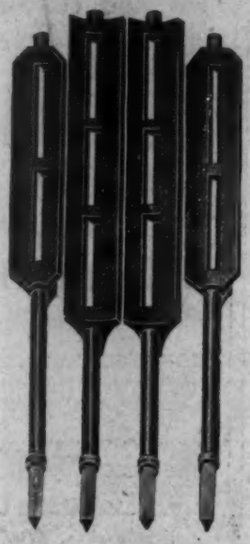
Tin, Sheet Iron and Copper Plate Worker

A practical Workshop Companion, containing rules for describing various kinds of Patterns used by Tin, Sheet Iron and Copper Plate Workers; Practical Geometry, Mensuration of Surfaces and Solids; Tables of the Weights of Metals, Lead Pipe; Tables of Areas and Circumferences of Circles; Japans, Varnishes, Lacquers, Cements, Compositions, etc., etc. By Leroy J. Blinn. With over 100 illustrations. $2.50.

For Sale by

DANIEL STERN,
355 Dearborn Street
CHICAGO.

The Grate Bars



Green's Colonial Furnace
AND
Green's Base Heater Furnace

are provided with grate bars which are hollow in the center so the air can pass not only over the outside of the bars but also through the center.

Each bar has three outer supports instead of merely one inner support.

If one support should become a little burned, there are two others to keep the grate bar straight.

Any side may be turned to the fire, consequently no warped bars.

Each bar operates independently of the others and in mild weather the ashes at the sides of the bowl may be removed without interfering with the fire in the center. Where two or more bars work together all must be turned with a consequent loss of fuel.

Any bar can be replaced without removing the others.

Each bar extends through the front.

WRITE FOR CATALOG ILLUSTRATING AND DESCRIBING
THE ENTIRE LINE OF MODERN UP-TO-DATE FURNACES

GREEN FOUNDRY & FURNACE WORKS
DES MOINES, IOWA.

LINCOLN STOVE REPAIR CO., Lincoln, Neb. State Managers for Nebraska.
ROWE CONSTRUCTION & HEATING CO., Watertown, S.Dak. State Managers for S. Dak.

You Can Be Boss

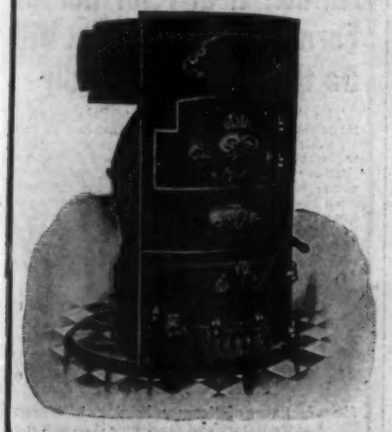
of the heating business in your locality if you install "MUELLER" Furnaces.

Of course the "MUELLER" costs more than the cheap, competition heater, but your customers will gladly pay the difference for the superior qualities of the "MUELLER."

The "MUELLER" Double Radiator, all cast furnace is EXCLUSIVE—nothing made that can compete with it. Easily sold, and at a good profit.

Over 50,000 Mueller Heaters in Use.

L. J. MUELLER FURNACE COMPANY
ESTABLISHED 1857.
191 Reed Street **Milwaukee, Wis.**



OUR NEW
DE HAVEN ALL CAST FURNACE

Strictly Modern and Up-to-Date in Every Respect

All the latest features in modern furnace construction are embodied in the make-up of this furnace. Features:

Extra Heavy; Gas Tight; Burns all grades of Hard Coal, Soft Coal and Wood; Simple and Economical to Operate; Top Return Flue Radiator; Large Radiating Surface; Roller Bar Grate.

Write to-day for Catalog and Prices.

YOUNGSTOWN FURNACE & SUPPLY COMPANY
Manufacturers of the Celebrated LION-APEX and BESSEMER Series of Furnaces.
NILES, OHIO

Chicago Branch
218 East Lake Street

ROOD & McINTYRE
Kansas City, Mo., Southwestern Distributers

Time Is Money!—Don't Waste It Pushing a Poor Article!

Schwab Side Wall Registers

We have avoided the defects of other makes and have embodied in their construction original features making them the most perfect Side Wall Registers now on the market

Noiseless
Simplest
Neatest.

R. J. Schwab & Sons Co.,
Milwaukee, Wis.

SELL THE Gilt Edge Furnaces

It takes more time to sell poor goods and gets you into trouble

GILT EDGE

is easy to sell and each job is a good advertisement.

Be the leader this year.

Sell the GILT EDGE furnaces

GET OUR CATALOGUES

R. J. SCHWAB & SONS CO.
MILWAUKEE, WISCONSIN.

Tin and Galvanized Iron Pipe and Fittings

Do you know that you can save many hours on a job by using

Fittings that Fit?

We make that kind and no other.

Try them and you will always use them.

R. J. Schwab & Sons Co.,
Milwaukee, Wis.

Where Quality Rather Than Cheapness Is Considered

Floral City Furnaces

Continue To Lead

We have never catered to the demand for a cheap furnace because it is our belief that the BEST is none too good and that no responsible dealer can afford to risk his business reputation by handling other than the best. Any dealer will find in **FLORAL CITY FURNACES** a line that will satisfy his most discriminating customers. Made in any size or style, strictly up to date, every one of them, and perfect in construction and operation.

Write for Our Handsome Catalog

Monroe Foundry & Furnace Co.
Monroe, Michigan

TRIPLEX BUFFS

will save you 50% of the present expense in your Plating and Polishing Departments.

They wear twice as long.

Save 20% in composition.

Can be used for cutting or coloring up.

Can be remade to original sizes when worn down.

Stove manufacturers and others highly recommend them.

We are the sole manufacturers.

Our TWO-BAR SILVERITE ANODE is made in any length desired and is a light sound anode, readily handled and easily cleaned.

Important Notice—Any folded buff not stamped with our trade mark "Triplex" used or sold is an infringement on our license patent and our rights in this respect will be strictly enforced.

Zucker & Levett & Loeb Co. 516-524 West 25th Street NEW YORK CITY

A Water Heater for Hot Air Furnaces & Stoves that Will Do the Work Successfully—

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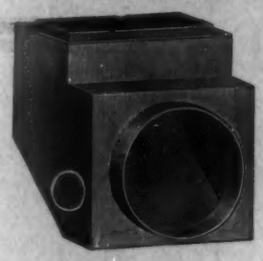

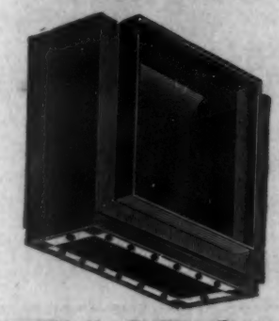

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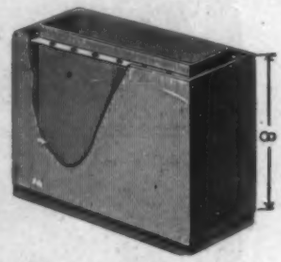

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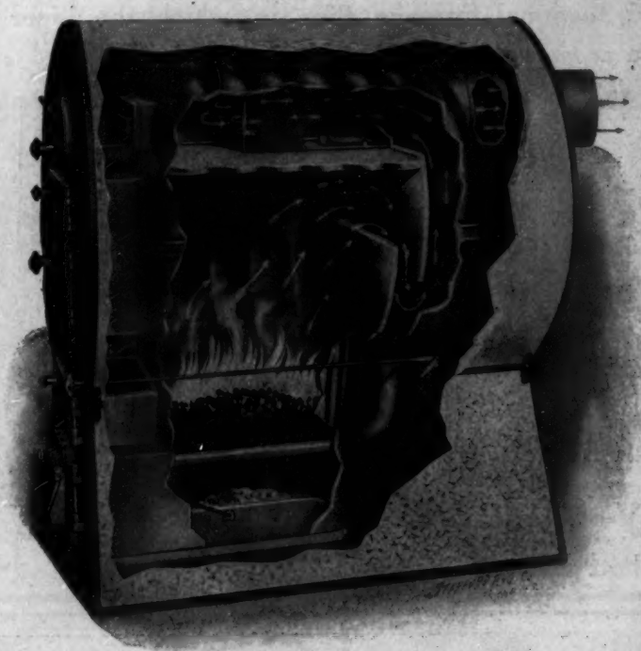

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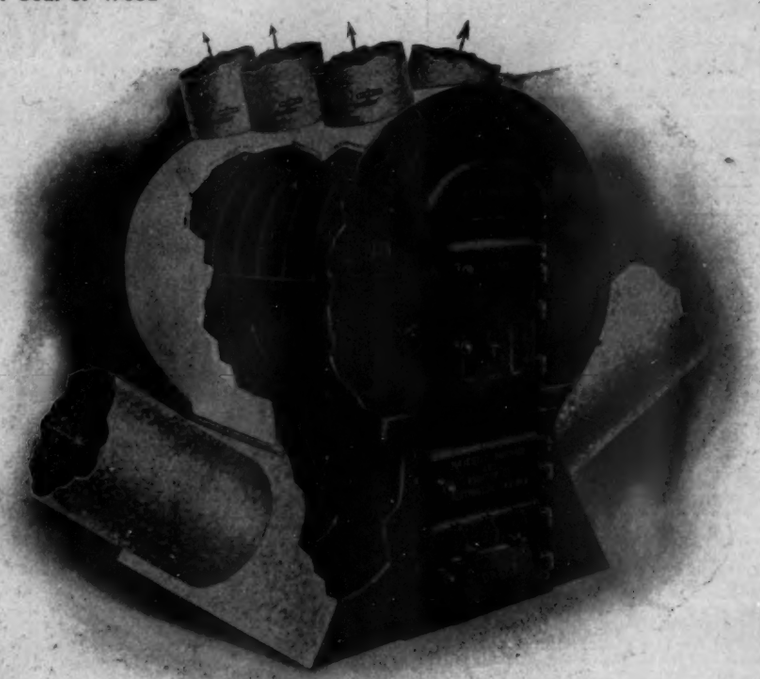

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ESTABLISHED 1880.

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Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

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355 DEARBORN STREET, CHICAGO, ILL.

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CHICAGO, APRIL 3, 1909.

MEN with initiative, business acumen and executive ability instead of men of culture, refinement and social standing, are demanded in the Consular Service of this country, and a ship subsidy is needed for the increasing industries of the United States, according to Professor John C. Freeman of the University of Wisconsin, who spoke before the ways and means committee of the Chicago Commercial Association on March 24. "The Consular Service can be improved," he said, "by placing as Consuls men of initiative, business acumen and executive ability. Culture is not necessary nor essential, although college-bred men would make good Consuls if they possess the requirements mentioned. In France they have a national school for their Consular Service and such a one here would be all right. The Consul must look after industrial, commercial and financial interests for his country."

Optimism Personified.

"THERE IS a steady but moderate improvement in business. The business of the country is thawing out from the great frost which struck it in 1907 and which continued during a part of 1908. The streams and rivulets are beginning to trickle in their flow again, and I do not believe that there will be a return to the old conditions."

In these words James J. Hill, the railroad magnate and consistent exponent of the unlimited resources of the great Northwest, a few days ago expressed his confidence in the restoration of industrial prosperity.

"Taft is a sane, level-headed man," said the railroad man in reply to a question about the general outlook. "I think the President grasps the pressing need for economy in the conduct of the affairs of this country. One of the dangers hanging over the country is the enormous expenditures, not merely Federal, but State and Municipal, and the consequent effort to produce revenues to meet these expenditures. Economy in government should be the watchword. For years our people have been like an heir come into a vast and wealthy estate. We have been wasting and squandering the great inheritance which Providence provided.

"And worst of all in our prodigality we have been unable to distinguish between income and liquidation of our estate. We have cried income, income, when with income there has been great liquidation. We cannot plant coal and copper and iron, nor can we restore fertility to lands that have been worked to death. One of the most hopeful signs in the West is the abundance of money."

The farmers in the West are actually turning bankers. If a man wants to raise a loan on a piece of property, instead of going to the country bank, he will go to the farmers in his locality who have the money and get his loan at 5 to 6 per cent. The farmer prefers this to putting his money in the local bank at 2 to 3 per cent to be loaned back again. As a result, the country banks are sending their money to the cities in search of commercial paper, while the farmers to a general extent are doing a banking business. Who said the farmers needed an uplift movement?

Protection of American Patents.

FOLLOWING up a communication which he sent out to members of the association on December 21, 1908, dealing with the subject of Protection of American Patents, President Robert Garland of the American Hardware Manufacturers' Association, is distributing another letter upon the same subject, together with a copy of the resolution relating to foreign patents passed at the Memphis convention last November.

President Garland points out that the subject above referred to is taken care of in the recent report of the Ways and Means Committee of the House of Representatives, Washington, D. C., and is now incorporated in what is known as the Payne Tariff Bill. Section 41 reads as follows:

"That whenever a patent is issued by the United States to any citizen or subject of a foreign country, it shall be subject with respect to manufacture thereunder in this country to all the limitations, conditions, and restrictions that are imposed by the country of said citizen or subject upon the manufacture in that country under patents issued therein to citizens of the United States."

Sec. 42.—"That all acts and parts of acts inconsistent with the provisions of this act are hereby repealed."

While conceding that the passage of the bill will give American manufacturers substantially what they are looking for, Mr. Garland takes occasion to refer to the fact that nothing is mentioned in the foregoing proposed legislation with regard to patents already issued. It will be remembered that the British Legislature in passing the Patent Act of 1907 made provision for what the United States Government has so far failed to do in regard to patents already issued, by making the law retroactive in this respect. President Garland in his letter states that it is very probable that under our Constitution this cannot be done, and that he is given to understand from an authoritative source that this feature is intentionally left open for the courts to decide.

While it is admitted that our proposed legislation is not as complete and does not conserve the interests of American manufacturers as fully as might be desired,

it is, nevertheless, a step in the right direction, and gives a measure of protection to American patents which has long been sought for.. One has only to revert to the recent decisions rendered in Great Britain against American holders of British patents and others, for evidence of the drastic provisions of the British law. American manufacturers should act upon President Garland's advice and bring the necessary pressure to bear upon United States Congressmen and Senators that will result in the passage of the portion of the tariff bill above quoted. It is high time that the United States followed the example of various European countries in giving adequate protection to their industries by the passage of the right kind of a patent law.

The South and Education.

THE Commissioner of the United States Bureau of Education bears witness to a remarkable educational revival in the South in his report for the year 1908. He says it is doubtful whether the large vitality and significance of the Southern public school campaign are as yet appreciated; and he adds:

"It is indeed one of the most striking educational movements of our time, and is making a chapter of surpassing human interest in the history of American civilization."

The incidents and statistics set forth in the Commissioner's general introduction amply support the view. One has only to glance over the comparative table prepared by the Commissioner to see evidence that the Southern people give money freely for popular education. Tennessee, for example, has raised its annual state appropriation from $407,644 in 1904 to $1,030,524 in 1907. The revenue from local taxation, which was $1,828,002 four years ago, is only $1,724,429 for last year. But the substantial increase for educational purposes remains even after this loss is set off against the former gain.

Other states have done better than that. Georgia has nearly doubled her state appropriation in the same period, while increasing her revenues from local taxation, and Louisiana has raised her annual revenues from local taxation from $890,392 to $1,570,597 and increased the state appropriation from $548,837 to $779,438. No one will intimate that these sums are probably sufficient for educational purposes in these states. The significant fact is not so much the total as the comparative amount—not so much the present financial status of the schools as the plain upward movement of the appropriation curve. The marked progress in the consolidation of the rural schools in the South is one of the features of the general advance. In December, 1906, it was reported that 200 schools had been consolidated to 60 in Virginia. In Louisiana the number of school districts transporting pupils to central schools was reported at 37, with 50 wagonettes used in the service. Two years before there had been none. Florida and Tennessee also reported progress.

It may be asked, What are the specific causes of this educational renaissance in Dixie? The first cause is unquestionably the general quickening of the public mind as to the value of education as a preparation for citizenship—a condition observable in all sections of the country. The second cause is the simple fact of material prosperity. The South is spending more money for popular education because it has it to spend. During the last ten years, owing largely to the good prices for its staple products, the Southern States have enjoyed unprecedented prosperity. Thus does the mental progress of a state largely hinge on its material advancement. The latter likewise hinges on the former.

Cutting Off The Timber.

STATISTICS recently compiled jointly by the Forest Service of the Department of Agriculture and the Census Bureau of the Department of Commerce and Labor show that our lumber production in 1907 exceeded that of any previous year, amounting to 40,256,154,000 feet and having a value of $666,641,367 at the place of production. It is estimated that production not reported would bring up the total value to nearly $750,000,000. The total for 1906, the largest year but one on record, was $656,796,513. In the beginning of 1907 the mills in the Southern and Pacific Coast states cut heavily, because general business conditions then indicated an unprecedented demand; but the financial disturbances coming later caused the mills to shut down, wholly or partially. Nevertheless, the year's record surpasses all others. As in the two previous years, Washington led all other states in production, its output in 1907 being 3,777,606,000 feet. That is a decrease of 12 per cent from its production of 1906, due solely to the panic. Louisiana retained its rank as second of our lumber producing states, cutting 2,972,119,000 feet, an increase of 6.3 per cent over 1906. By cutting 2,229,590,000 feet last year, Texas advanced from eighth place in 1906 to third, ousting Wisconsin, which dropped to fifth place with a cut of 2,003,279,000 feet, a decrease of 14 per cent. Illinois ranks thirty-third, with 141,317,000 feet, or .4 of 1 per cent of the total cut in 1907.

The Government's statisticians say that notwithstanding an increase of nearly 25 per cent in the number of reports received from the lake states (Minnesota, Wisconsin, and Michigan) in 1907, the decrease in the reported cut was 11.7 per cent. "This emphasizes strongly," says the report, "the constantly decreasing lumber production of the region, due to the exhaustion of the white pine supply. There was a falling off even in Minnesota, which now contains the largest amount of standing white pine."

The lumber cut of New York and New England combined amounted to 3,617,482,000 feet, an increase of 10.7 per cent over 1906. This is a noteworthy showing in view of the waning timber supply of that region and the adverse conditions of trade the latter part of the year. Yellow pine ranked first in point of production last year, the cut being 13.3 per cent greater than in 1906 and constituting 32.8 per cent of the total. Douglas fir ranked second and white pine third, while oak took third place from hemlock. Spruce and western pine showed marked increases. These seven woods, of which over a billion feet each were cut last year, yielded thirty-two and one-half billion feet of lumber, or over four-fifths of the entire cut.

The soft woods as a group furnished 31,001,225,000 feet of lumber, or 77 per cent of the total, and the

hard woods 9,254,929,000 feet, or 23 per cent of the total. Walnut is the highest priced native wood today, its average value last year being given as $43.31 at the mill, and the total value of the cut as $1,796,756.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

You've heard of Don McMillan, the hardware salesman! Well, in case you haven't, I'll state that he is a manufacturers' agent at 40 Dearborn street, Chicago, who can sell more goods in one week than most salesmen can sell in one year. Don is one of the older class of traveling salesmen and one of the wisest fellows you ever met in your life—sometimes. Last week he conceived the idea that his presence was required in St. Louis, and so on Sunday evening, March 21, he boarded a street car at Fifty-fifth and State streets, Chicago, with his $40 grip chock-full of good things in the way of wearing apparel, stick pins and diamond rings galore. And, believe me, everything in that grip was all wool and a yard wide, including the jewelry, for Don had the swellest collection of stick pins and the like that I ever saw a man wear. Don't forget that I used the past tense. Now, it is a habit of Don's, and sometimes a good one at that, that whenever he makes a trip of any consequence he plants his jewelry in that $40 grip of his. He did so on Sunday evening, and when he boarded that car at Fifty-fifth and State he was sailing along under bare poles, on his way to the railway station. When the car reached Eighteenth street he discovered to his amazement that his $40 grip with all its contents had made its getaway. I forgot to state that there were some stock and bond papers of some account in the grip too, for you never in your life saw Don McMillan with anything that wasn't gilt-edge. Search was made for the missing grip, but as might be expected in Chicago, it is still posted as missing to the best of my knowledge. Don was too nonplussed to take the trip to St. Louis that night, and he postponed it to the following evening. He stopped payment on his stocks and bonds, that was one thing he could do, even if he couldn't locate the grip. They tell me that what he lost in that grip would have taken his wife and daughter to Europe on a trip that might consume many weeks, and still there would be a few guineas left. It's too bad, Don, but take my advice. Keep 'em on in future.

* * *

Previous to the establishment of the rural free delivery system Wisconsin had many thriving inland villages, or rather corner stores, says a correspondent of *The Chicago Tribune*, writing from Rio, Wis. These were usually six or more miles from any railroad town or station and were considered a great convenience to the farmers. These same corner stores usually had the postoffices. There seldom was more than one store, but frequently there was a blacksmith and wagon repair shop, creamery or cheese factory, school and church. The repair shop usually was of great advantage to the farmers and the merchant and blacksmith universally did well financially, though they did not amass any great fortunes. Since the rural free delivery came, the writer says, 80 per cent of these crossroads stores have gone out of business, as the farmer had no occasion to call for his mail and consequently his small trade there became so much less that the merchant had to go out of business or run his place at a loss. He does not think any of the older farmers will say they paid more for the same goods, quality and quantity considered, than they have to pay now at the larger stores or the larger towns, or to the mail-order houses. There can be absolutely no doubt that a Parcels Post would help the big mail-order houses and injure the smaller railroad towns, and when I say smaller, I mean any town under 10,000. With no local merchant, no local town, there would be no local market for small produce such as butter, eggs, milk, vegetables, etc., unless it was consigned to some commission merchant in the large cities or factory centers.

* * *

The strong tendency of the average boy toward schools which teach mechanical arts is a curious commentary on the inefficiency of the modern school system in the production of that type of citizenship which is most to be desired—the self-supporting, reasoning man who becomes an industrious member of a community. Sneers from educational officers at having to "treat blacksmiths better than university graduates" are entirely unwarranted and uncalled for. The honest blacksmith is a far more valuable member of a community than the university nincompoop who is all poll-parrot education and of no practical use except for higher pedagogy. There are plenty of college graduates who have been intellectually strangled by mental gymnastics. They can unravel the mysteries of differential calculus, recite the greatest Sanskrit author's masterpiece and give you offhand the exact number of miles, feet and inches from the sun to the moon, but they have no more real intelligence or interest in life than a Tagalog tomahawk. Educationists are prone to boast of their systems of developing character. Yet their schools develop character in a boy along the same line that character is developed in jelly by pouring it into a mold. They mistake characteristics for character, and gild with superficial memorizing of thrice-worn texts the tombs of still-born intellect. For centuries the average boy has never discovered that he had a mind until he had left school behind him. His awakening at an earlier stage of life indicates that in some respects the schoolboy is more alert to the demands of our later-day civilization than those who are taxed with his education.

* * *

Dr. L. H. Baekeland recently announced at a meeting of the American Chemical Society in New York that he has discovered a new chemical substance, which will be known as "oxybenzylmethylenglycolanhydride." Might it be possible that the new chemical possesses real rust-resisting properties? The name is certainly long enough, if that will help any.

* * *

Franklin Pierce, writing on the paramount subject that now confronts us, sums up the state of mind of selfish persons by recalling the prayer of the clergyman of the great zinc mining center of Joplin, Mo., when the metal schedule was last under consideration:

So now we humbly pray that we
Be saved from ruin's brink:
We will accept whate'er must be,
But Lord remember zinc.

News Siftings

The Great Western Stove Co. of Leavenworth, Kans., proposes to erect extensive additions to its plant.

The Grand Rapids Stove Co. of Grand Rapids, Mich., will increase its capital stock from $50,000 to $200,000. It is reported that the concern will move to Battle Creek, Mich., and build a foundry on a site of seven acres of land donated by citizens.

The many friends of James R. Graves, secretary of the Chicago Stove Works, 22d Street and Blue Island Ave., Chicago, will be glad to learn that he has fully recovered from his recent illness and is able to attend to business once again. Mr. Graves reports an increasing demand for the celebrated "Gold Coin" stoves and ranges.

A. L. Canfield, 95 Beekman street, New York, is distributing a 32-page catalogue, describing "Monarch" gasolene stoves and ranges, and "Perfect" wick and wickless blue-flame oil stoves, which the concern sells at wholesale. The catalogue is well printed, the illustrations showing up to good effect the distinctive features of the "Monarch" line.

In order to take care of their increasing business and install additional machinery for the purpose of manufacturing patterns for castings, The Cleveland Castings Pattern Company of Cleveland, Ohio, have changed their location and are now occupying the Younglove Building, entrance 5518 Euclid Ave., Cleveland. The Cleveland Castings Pattern Co. claim to have the largest pattern works in the world. They state that their facilities and equipment assure the highest grade of work.

The National Association of Stove Manufacturers will hold its annual convention at Atlantic City, N. J., on May 12 and 13. The Stove Founders' National Defense Association will meet on May 11, and the Federal Furnace League, which was organized during the convention of the stove men in New York City last May, will also meet at Atlantic City this year at or about the time when the stove manufacturers will convene. Headquarters for the associations will be at the Marlborough-Blenheim.

F. M. Borden & Bro., 118-122 N. Second street, Philadelphia, Pa., are distributing a circular describing the Borden Steel Range, of which they are the jobbers. They state that this range has won unstinted praise for its handsome appearance and dependable efficiency. Simplicity, durability and compactness are three of its important features. The furnishing of the Borden steel range in so many different combinations and in both right and left-hand oven styles, makes possible the selection of a range to meet the most exacting requirements.

Fred C. Alber has resigned his position as assistant purchasing agent of the City of Cleveland, Ohio, to become secretary of the Champion Steel Range Co. of that city. Mr. Alber will assume some of the duties of John A. Herbst, who has been performing the duties of treasurer as well as of secretary. Chas. H. Miller, president of the company, with Mr. Alber, was a caller at the offices of THE AMERICAN ARTISAN during the week. Mr. Miller reports business good and a steadily increasing demand for the company's celebrated Champion Interchangeable Ranges.

CATALOGUE OF THE BORN STEEL RANGE CO.

The Born Steel Range Co., Cleveland, Ohio, are distributing their Dealer's Catalogue No. 18, illustrating and describing Born Steel Ranges for family use, and a few selections from their hotel and restaurant line. The book contains 72 pages, measures 7 x 10 inches and is gotten up in elegant form. The paper that has been used is of the highest grade and the printing is a work of art. The strong points of Born Steel ranges include the following: Patent removable oven bottoms that do not warp; weight-balanced oven doors—no springs to get out of order; malleable iron hinge plates anchored to oven door frames make them proof against breakage; double steel plate bodies, interlined with asbestos board; cast back flues that will not burn out or rust through; heavy sectional cast-iron tops that stand the heat and strain; large drop feed doors for wood and coal; reversible duplex grates that can be used for coal or wood; dampers that operate from front where they are easy to get at; shields at sides of top flues to retain heat and protect oven joints; adjustable flue slides that regulate the draft for different fuels and chimneys; thick cased asbestos flue bottoms to retain heat and protect the floor; patent turn closet doors made of planished iron—paneled or roll front; planished iron end-panels that give a handsome and durable finish; encased reservoir heated by patent process—no connections; side pouch feed or broiler door with check damper. Special attention is given in the catalogue to Born steel ranges, series "D," "A," "B," "C" and "E." Recognizing the demand which exists in some quarters for malleable ranges, The Born Steel Range Co. have brought out series "F" in three sizes, with and without reservoir. These ranges are shown to excellent advantage in the catalogue, their neatness and handsomeness of design being very apparent. Series "G" and "K" are low priced ranges from small to medium size. Both are good and substantial and contain the same quality of materials as the company's more expensive patterns. A very full description is given of Born Combination Gas and Coal Ranges, which are shown in various styles and sizes. There are also described in the catalogue, double oven ranges; bake ovens; Born's new air-blast stoves; Born's new line of oaks; Born's laundry stoves; coffee urns, and other kitchen appliances. When writing The Born Steel Range Co. for catalogue, kindly mention THE AMERICAN ARTISAN.

STOVE REPAIR PIRACY MEETS REVERSE.

In the contest with stove repair pirates for the recognition by the courts of the rights of stove manufacturers in the manufacture and sale of their repairs, which has been going on for some time under the supervision of the National Repair Committee, the movement being supported by practically all of the stove manufacturers in the United States, the Supreme

Court of Massachusetts in one of the test cases brought in that state, reversed the findings of the lower court and awarded the plaintiff, the Reading Stove Works, Reading, Pa., an injunction and an accounting of profits. The defendant in the case was a Boston concern. Stove manufacturers feel that this is an important step gained by them in their contention for their rights. In his decision, Judge Bradley says:

"While the finished stove when put upon the market is protected, the trade-mark embraces also the component parts from which it has been assembled. If an infringer who could not lawfully imitate and sell a complete 'Sunshine' stove, and represent it as having been made by the plaintiff, was permitted instead, to make and vend to jobbers and retail dealers, under such a representation the various parts, including the frame, with the name either in full or abbreviated, marked upon them by raised or impressed letters, upon the ground, that while the whole could not be pirated, the constituent parts might be, the protection and value of the plaintiff's trade-mark would be greatly impaired, if not wholly destroyed."

COMBINED COAL AND GAS RANGE.

Charles H. Miller of The Champion Steel Range Co., Cleveland, Ohio, was on March 23 granted a United States patent on a combined solid-fuel and gas range, a sectional view of which is shown in the accompanying illustration. Mr. Miller filed the application for the patent on April 13, 1908. The range has an oven with a trough-shaped depression across its middle from the front to the rear of the oven and an air inlet space in the bottom of the range over the bottom plate thereof, in combination with a gas burner in the depression substantially the full length thereof. There is a spreader plate over the burner and raised above the bottom of the oven. A hollow flue strip extends lengthwise with the depression and open thereto along its top and to the air space in the range at its bottom and sub-dividing the heat flue at the bottom of the oven partway from rear to front. When writing The Champion Steel Range Co., kindly mention THE AMERICAN ARTISAN.

Patented Interchangeable Range.

THE "SHERIDAN" CAST RANGE.

The Sheridan Stove Mfg. Co., Quincy, Ill., states that the "Sheridan" cast range has all the qualities of a steel range and the added advantages of durability of cast construction. They describe it as "an honest range, made by honest people, from honest material, by honest workmen, for honest dealers, for their honest customers." The "Sheridan" is guaranteed to be an excellent baker and perfect water heater. It is of Mission design and is ornamented with a medallion portrait of General Phillip Sheridan on horseback, nickeled. It has a balanced drop oven door, with two extra supporting lugs. The Duplex grates can be removed by taking out one bolt in a little plate where the Duplex handle comes through. The fire-back is made in three pieces with an air-chamber behind each piece, which prevents it from burning or warping. The "Sheridan" cast range is made in two sizes, with 18x18 and 20x20-inch ovens. When writing for the company's complete catalogue of cooking and heating stoves, kindly mention THE AMERICAN ARTISAN.

DANGER LURKS IN FREQUENT CHANGES.

BY JOHN A. HOWLAND.

Nothing in the life of the young man of average temperament appeals to him more strongly than the impulse for change. Few young men are fortunate enough in the beginning to fix upon the one line of effort for themselves, choose wisely a field of opportunity that is promising enough, and then hold fast. Thousands of capable young men are unable to understand why it is that men of riper judgment and experience are inclined always to frown upon this impulse for change which is so universal in youth. Some of this conservatism belongs to age without further reason, but it remains that much of it is based in a sane, sound observation of men and things. The one trouble with the young man is that his impulse for change is too often based on something else than his judgment. He may be dissatisfied with his slow progress where he is. His imagination may prompt him that somewhere else he will have a better opportunity. Mere desire to see the world may be the incentive which stirs him. But whatever the single or cumulative promptings which move the young man to new fields, that change can not be made in wisdom without taking into consideration the present and potential worth of the position which he holds. Not all such positions have been chosen wisely. It is quite possible that many of them could be improved to his future advantage. But the choice must be made in wisdom and not because of restlessness in one place or because of a desire to see a little more of the world than is possible to him where he is.

To the average employer of men the mere fact of an applicant's having been an employe in an unusual number of places is in no sense regarded as an indication of that young man's efficiency. Rather it is likely to establish prejudice. The average applicant for a position ordinarily finds that he has to enter into explanation as to when and why and how he left even the one place of his former employment. Not to have this sufficient reason invariably is regarded as a blemish upon the character of the candidate. Few young men appreciate how much meaning the conservative, level-headed business man of experience reads into his applicant's answers regarding his places of former employment. If the position which he left appears to have been a good one the young man may be weighed as foolish for having left it. If the place were especially unsuited, this prospective employer may discount the young man's judgment for having taken it in the first place. Always, however, if the applicant shows a logical reason for leaving any such place, it can not fail to impress the man questioning him. Does not this one fact bring home to the young man the desirability of considering well his reasons for change?

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 38 to 43 inclusive.

The washing machine factory of N. C. Baughman, York, Pa., was damaged by fire on March 27 to the amount of $2,500.

O. S. Floring of New Brighton, Pa., is interested in a project to establish a factory at Portland, Mich., for the manufacture of cutlery. It is proposed to employ about 50 men at the start.

The Milford Mfg. Co., Irvington, N. J., has been incorporated with a capital stock of $50,000 to manufacture cutlery, by Andrew Volker, Christian F. Mayer and Emma T. Mayer, of Newark.

America's Second House-Furnishing Show was held in Horticultural Hall, Broad street below Locust street, Philadelphia, Pa., on March 29 to April 3, inclusive. It was very largely attended.

The Illinois Cutlery Co., 138 Jackson Boulevard, Chicago, to manufacture and deal in tools and cutlery, with $10,000 capital stock, has been granted a certificate of incorporation through Charles Hans, Fred W. Koenecke and Robert Krueger.

The Truax Manufacturing Co. of New York City has been incorporated with a capital stock of $10,000 to manufacture hardware and hardware supplies. The incorporators are: Henry T. Truax, New York; Arthur M. Kinkkeldey, Brooklyn, and Alonzo N. Rose, New York.

The No-Ke-Lock Co., Wilkinsburg, Pa., has been granted a charter at Dover, Del., to manufacture, sell and deal in keyless locks of all descriptions. The capital stock is $250,000, and the incorporators are: R. E. Cook and J. F. Balsley, of Wilkinsburg, Pa., and C. A. Smith, of Pittsburg.

The Standard Kitchen Furnishings Co. of Boston, Mass., has been incorporated with a capital stock of $25,000, to handle kitchen supplies of all kinds. The officers of the company are: President, Jos. Bearson, Dorchester; treasurer, Jacob Charak, Cambridge; clerk, Jacob Rittenburg, Roxbury.

Bullard & Gormley Co., hardware dealers, Chicago, are making preparations to move into their new premises at 51-53 Lake street and 41-43 State street. The Lake street portion of the building which contains five stories and basement and measures 50x 175 feet, will be used for the company's wholesale business, while the State street section, measuring 60x 68 feet, will be devoted to the retail business. The building is constructed in the form of an "L."

The spring number of *Hardware and Metal*, Toronto, the well-known Canadian hardware trade journal, is a voluminous publication of 230 pages and is gotten up in a style which reflects credit upon the enterprise of the publishers. The cover design is especially unique and attractive, suggesting up-to-date methods and ideas in retail hardware store salesmanship. The publishers of *Hardware and Metal* are to be congratulated upon the production of such an elaborate number.

The warehouse of the Frank Geele Hardware Co., hardware jobbers, Sheboygan, Wis., will be converted into a manufacturing plant, for the concern proposes to manufacture a patent cattle stanchion. New machinery will be installed and the plant will be operated by electric power. The company expects to turn out 5,000 cattle stanchions the first year.

The Caldwell Mfg. Company, 41 Jones St., Rochester, N. Y., are distributing a circular illustrating and describing the Boucher Adjustable Shaving Glass, which is claimed to make shaving safe and comfortable. It may be applied to any window, or elsewhere to obtain a strong light, and it is instantly adjusted to any angle. It may be carried safely in a satchel or trunk and it can be quickly attached to the meeting rail of any window by means of the company's clamp. When writing the Caldwell Mfg. Co., kindly mention THE AMERICAN ARTISAN.

The Toledo Cooker Co., 1336-1342 West Bancroft street, Toledo, Ohio, have purchased at receiver's sale all of the stock, assets and good will of the O-HI-O Cooker Co., which company has gone out of business. The Toledo Cooker Co. will continue to furnish O-HI-O Cookers in all styles to the trade with the utmost promptness, also "Ideal" Round and Square Cookers, a complete line of Fireless Cookers, "Ideal" Roasters and Aluminum Percolators. The last two articles mentioned are new, and The Toledo Cooker Co. states that they have already acquired a marked degree of popularity and are proving to be splendid sellers.

WHAT OTHERS SAY OF "THE ADVERTISING MANUAL."

From "Domestic Engineering," Chicago.

"THE ADVERTISING MANUAL, a recent publication by Daniel Stern, of 355 Dearborn Street, Chicago, treats instructively on the subject of Retail Newspaper Advertising. 278 pages; bound in cloth; price $3.50. The book is concise, profusely illustrated with 'good' and 'bad' examples of advertisements, for comparison and aid in preparing copy for, and displaying resultful, business-bringing advertisements for retail merchants' use in newspapers. It shows how good copy may be spoiled by poor type-display and the value of their illustrated examples is enhanced by the fact that the advertisements shown are not theoretical, but actual advertisements that have run in the papers and whose resultfulness has been tested. The book is of undoubted worth as an aid to the retail merchant in preparing that desirable, but illusive, style of advertising copy known as 'printed persuasion.'"

From F. R. Switzer Co., "Successful Advertising," Utica, N.Y.

"We have glanced through THE AMERICAN ARTISAN ADVERTISING MANUAL, and it certainly ought to be of considerable interest to the retail hardware trade, and we think you deserve considerable credit for the undertaking."

AWARDS IN THE AMERICAN ARTISAN'S HARDWARE WINDOW DISPLAY COMPETITION.

The judges selected by THE AMERICAN ARTISAN to pass upon the photographs of hardware window displays entered in THE AMERICAN ARTISAN'S $100.00 hardware window display competition, met on March 27, and after due deliberation, in which each photograph submitted was carefully scrutinized, made the following awards:

First prize, $50.00, "Unique."
Second prize, $25.00, "Gogitem."
Third prize, $15.00, "Ernest Webster."
Fourth prize, $10.00, "A. H. Moore."

It will be understood that the judges in making the awards were guided by the assumed name or *nom de plume* of the contestants, written upon the back of the photograph submitted or upon the sealed envelope containing the real name and address of the person or firm entering the contest, as specified in the rules governing the competition. The judges had their assistants number the exhibits from 1 upwards as each package was opened, the corresponding number being placed upon the envelope showing the fictitious name of the contestant.

According to the system of numbering the photographs, "Unique," the winner of the first prize, bore the number 12. This photograph was submitted by Charles L. Wheeler, with the Barkley, Bouton & Crain Hardware Co., Ft. Collins, Colo. Mr. Wheeler is therefore the winner of the $50.00 prize.

"Gogitem," the winner of the second prize bore the number 23. It was entered by Max J. Elliott, with the Gray & Dudley Hardware Co., Nashville, Tenn. To Mr. Elliott is awarded the $25.00 prize.

In the order of things, "Ernest Webster," the photograph winning third prize, bore the number 19. "Ernest Webster" was the name assumed by Chas. A. McGavock, with Keith, Simmons & Co., Nashville, Tenn. Mr. McGavock, accordingly, is the winner of the $15.00 prize.

The photograph which took fourth prize, "A. H. Moore," was numbered 27. This exhibit was entered by Arthur Hoffman with P. Hoffman, 305 Ohio street, Sedalia, Mo. Mr. Hoffman wins the $10.00 prize.

After having determined the winners of the prizes, the judges took occasion to make Honorable Mention of many other photographs submitted, which were of specially meritorious character. A list of the contestants of whom Honorable Mention was made follows:

L. A. Paddock, with Paddock Hardware Co., 427 E. 47th St., Chicago.

S. H. Pengh, with W. E. Good, Kewanee, Ill.

C. A. O'Donnell, with D. R. McArthur Co., Greeley, Colo.

Jas. E. Voorhees, Bushnell, Ill.

Elmer B. Baker, with L. W. Gunby Co., Salisbury, Md.

M. C. Clement, with W. J. Davidson, 1224-1226 7th Ave., Beaver Falls, Pa.

C. E. Sloan, with Evans Hardware Co., Statesville, N. C.

Kyran A. Fisher, with Jas. Hamil, 1605 Broadway, Watervliet, N. Y.

Paul M. Whaley, Oxford, Ohio.

Bradford Bros., Glasgow, Ky.

A. E. Iunker, Yreka, Siskiyou County, Cal.

C. E. Ledyard, with N. C. Alten Hardware Co., 604 Brownell Ave., Lorain, Ohio.

Walter O. Droegkamp, with J. Droegkamp Co., 1550 Fond du Lac Ave., Milwaukee, Wis.

W. H. Redway Co., Ltd., Caldwell, Idaho.

W. M. McCreary, with Frank Everett & Co., Chehalis, Wash.

B. W. Haverfield, 911 Houston St., Fort Worth, Tex.

Harold Stevens, with Frank A. Ellis & Co., 1645-1651 Arapahoe St., Denver, Colo.

Chas. Young, with Jacob Ernwine & Son, 542 W. Market St., Louisville, Ky.

A. L. Daily, with Morrow-Thomas Hardware Co., Amarillo, Tex.

Frank G. Cramer, with Weaver, Palmer & Richmond, 15 Exchange St., Rochester, N. Y.

B. G. Moseley, with Bailey-Downing Hardware Co., Mason City, Iowa.

C. H. Van O'Linda, with Byrne Bros., 46 Pacific Ave., Santa Cruz, Cal.

John M. Wattawa, with The J. C. Lewis-Leykom Co., Antigo, Wis.

Ed. McNamara, with McGuire Bros. Hardware Co., Rockford, Ill.

Hanlin Hardware Co., Hutchinson, Kans.

Geo. H. Strang Hardware Co., Richland Center, Wis.

A. D. Tanfield, with McKeel-Richardson Hardware Co., 153 Main St., Washington, N. C.

J. H. Asselin, with Hotchkiss & Templeton, Waterbury, Conn.

E. J. Bracht, Lagemann Hardware Co., 837-839 State St., Quincy, Ill.

G. Strassen, with C. L. Harder, Jr., Lake Forest, Ill.

That the judges were very favorably impressed with the large number and high order of the displays submitted, is apparent from their report which follows:

Chicago, Ill., March 27, 1909.

To the Publisher of THE AMERICAN ARTISAN:

After having passed upon the merits of the large number of photographs entered in THE AMERICAN ARTISAN'S Hardware Window Display Competition, we take pleasure in awarding the first prize to "Unique," second prize to "Gogitem," third prize to "Ernest Webster," and fourth prize to "A. H. Moore." In presenting our report we wish to emphasize two features that especially impressed us.

First, the apparent interest that retail hardware merchants are taking in the matter of raising the standard of their best and most economical means of advertising, namely, their show windows, through the campaign which has been and is being carried on in the pages of THE AMERICAN ARTISAN.

Second, it is especially noticeable that the retail hardware trade is giving more study and thought to enlarging and broadening the selling scope of window displays by paying greater attention to details of arrangement and employing features characteristic of up-to-date hardware window dressing. It is clearly evident that THE AMERICAN ARTISAN through its annual hardware window display competition is doing much to enhance the value of the hardware merchant's show windows.

Having acted as judges in three consecutive contests, and noting the great improvement that has been wrought in this very important branch of the hardware dealer's business, we feel confident that if every retail dealer would keep a record of sales made on different lines of goods that have been judiciously advertised in his windows, he will find that the time, labor,

and the small expense involved, will be amply compensated for by the increased business that will inevitably result. Respectfully submitted,

W. H. BENNETT,
Reading Hardware Co., Chicago.
G. R. LOTT,
Ex-President Chicago Retail Hardware Association.
H. W. BEEGLE, Chicago.

The judges are entitled to much credit for the painstaking methods employed by them in deciding the winners of the prizes in the contest. The awards were made strictly upon the merits of the exhibits submitted, and we are confident that the decisions reached will meet with the approval of all those who participated in the competition.

A WINDOW DISPLAY THAT BROUGHT RESULTS.

One of the windows of hardware merchants of Springfield, Ill., that secured marked attention during the recent convention of the Illinois Retail Hardware Association at Springfield, was that of J. L. Hudson & Co., which we reproduce herewith. The window was given one of the prizes in the window trimming contest which was held during the convention in that city. Outside of the general arrangement of tools at the side, rear and on the bottom, which brought out the various lines effectively, the window dresser employed an idea not brought out in the reproduction. He placed on the window signs drawing attention to the special features of the goods displayed. From a sign reading "See That Clutch," a streamer of ribbon ran to a special fastener on a butcher saw. From a metal saw a streamer ran to a sign on the window reading, "Saws Wood or Any Untempered Metal."

Window Display of J. L. Hudson & Co., Springfield, Ill., Which Took a Prize in the Window Dressing Contest Held During the Recent Convention in that City.

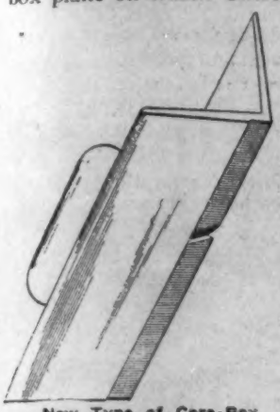
THE APRIL ISSUE OF "OUR DRUMMER."

Butler Bros., Chicago and other cities, are now distributing catalogue "N713," the April issue of "Our Drummer." April is homegoods time, and homegoods bargains in great variety are offered on the first pages of the big catalogue. Butler Bros. state that these staple goods for home use are offered at prices which will swell the dealer's profits and enable him at the same time to present a line of unapproachable bargains. These values, say Butler Bros., are made possible by foresightedness and courage reinforced with an organization designed to sell and distribute merchandise at minimum expense. Among the homegoods bargains shown in catalogue "N713," may be mentioned: Standard tinned handle steel fry pans; wire bowl strainers; vegetable or fruit presses; Mrs. Pott's pattern nickel plated sad irons; No. 9 size copper bottom IC tinned wash boilers; "Titan" gray enamel ware specials; galvanized oil cans with black handles, capacity one gallon; flour sifters; 50-pound white japanned flour bins and sifters; white japanned bread boxes; one-quart pieced dippers; sink drainers; meat and food choppers; spring scales; junior gasolene stoves, etc. A very large and varied assortment of dairy goods are shown; this being the time of the year when dairy supplies are in big demand. In catalogue "N713" Butler Bros. offer an extensive line of high-grade cutlery, and guarantee to replace any piece that may prove to be unsatisfactory. Three pages are devoted to "specials" in tinware which Butler Bros. purchased specially for their April sale. The regular tinware, nickel-plated ware, enameled ware and hardware departments are as complete as usual, and they show many items which should prove of interest to the dealer. The pages devoted to Butler Bros.' annual tool sale should also

prove interesting. When writing Butler Bros. for catalogue "N713," kindly mention THE AMERICAN ARTISAN.

NEWLY PATENTED CORE-BOX PLANE.

The accompanying illustration represents a core-box plane on which Clifford E. Martin of Greenfield, Mass., was on March 23 granted a United States patent. Mr. Martin, who has assigned the patent to The Stanley Rule & Level Co., New Britain, Conn., filed the application on February 9, 1909. The stock of the plane has two diverging side plates, the surfaces of which are arranged at an angle of 90 degrees relatively to each other. The plane iron has its cutting edge coincident with the angle and extending to one side thereof and in the plane of one of the plates. There is a clearance groove in the side plate extending forwardly and rearwardly of the cutting edge of the plane iron. The handle is arranged in the angle between the two side plates, and a clamping device is carried by the handle and wholly below the grip portion thereof. When writing The Stanley Rule & Level Company, kindly mention THE AMERICAN ARTISAN.



New Type of Core-Box Plane.

A NEW CAN OPENER AND BOTTLE CAP LIFTER.

Ira F. White & Son Co., Newark, N. J., have put on the market the "Sure Cut" Can Opener and Bottle Cap Lifter, shown in the accompanying illustration. It is declared to be a durable, practical and very serviceable tool. No. 501 has tow oil tempered steel cutters for round and square cans. It is full nickel plated and the finely polished metal parts are securely riveted to a handsome black waterproof handle. All can openers are packed regularly in fancy display boxes, but in plain boxes when so desired. Ira F. White & Son Co. also manufacture a large line of bread, butcher, carving and kitchen knives, family meat cleavers, shoe and putty knives, etc. When writing, kindly mention THE AMERICAN ARTISAN.

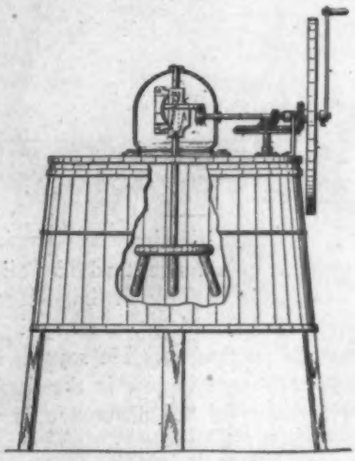
"Sure Cut" Can Opener And Bottle Cap Lifter.

PERFORATED METALS.

The Harrington and King Perforating Co., 212 N. Union street, Chicago, state that after having devoted their energies for many years to the production of perforated metal for a multitude of uses, they have accumulated a large variety of sizes and patterns suitable to almost any imaginable purpose. By discarding old machinery and introducing new and improved tools from time to time, they have been enabled to meet or anticipate every new demand and supply the best goods in the perforated metal line at moderate prices. Their lines are very diversified and admit of a wide range of application. The company advise that they are prepared to meet all demands for perforated metals of the hardware and other trades. When writing The Harrington & King Perforating Co., kindly mention THE AMERICAN ARTISAN.

PATENTED GEARING FOR WASHING MACHINES.

A United States patent on gearing for washing machines was on March 23 granted to Alexander F. Victor, manager of the Toledo (Ohio) branch of the White Lily Mfg. Co. of Davenport, Iowa. Mr. Victor filed the application for the patent on April 16, 1908. In the mechanism are combined a horizontally arranged shaft, a hub fixed thereto, and having pins on its periphery near one end, a vertically arranged shaft and a block fixed thereto and having flat sides. Two links are pivoted to the block and extended in a direction away from the horizontally arranged shaft. A bracket pivoted to the links has two curved arms fixed thereto, and extended in a direction toward the horizontally arranged shaft. The forward ends of the curved arms are made concave from their upper to their lower ends. A plate is fixed to the bracket and has a slot therein to receive the block, a segmental rack being fixed to the edge of the plate. The rack is designed to mesh with the pins on the hub, and the concave forward edges of the arms are designed to engage that portion of the periphery of the hub that extends beyond the pins. When writing the White Lily Mfg. Co., kindly mention THE AMERICAN ARTISAN.



Patented Washing Machine Gearing.

Why do people prefer to trade at a certain store? It is because they can get what they want at the right price and are treated right.

"COMMUNITY" GALVANIZED SASH CHAIN.

The Oneida Community, Ltd., Oneida, N. Y., are calling the attention of the trade to their "Community" Galvanized Sash Chain which is made from the best quality of rolled steel stock, punched, made and galvanized by special machinery of their own manufacture. The makers state that "Community" sash has a higher tensile strength per square inch of cross-section and a higher fusing point than bronze, copper or any of the alloys used in the manufacture of many types of sash chains. "Community" chains are guaranteed not to stretch or melt at temperatures that will melt chains made of other metals, and to remain in place after the most severe fire tests. The Oneida Community, Ltd., have standardized the numbers of their sash chain to correspond with the weight of double hung sash that they will safely carry—No. 80 for sash weighing 80 pounds, No. 100 for sash weighing 100 pounds, and No. 130 for sash weighing 130 pounds. The Oneida Community, Ltd., requests those interested to send for samples and prices. When writing, kindly mention THE AMERICAN ARTISAN.

LANTERNS FOR JAMAICA.

Consul F. Van Dyne, of Kingston, Jamaica, in reporting that there is a large trade in oil lanterns in Jamaica, as there is in force in that island a stringent law requiring all vehicles to carry lights after sunset, gives trade particulars. He says:

"The bulk of this trade is now in the hands of the Germans, on account of the difference in price between the lantern furnished by German manufacturers and the cheapest article of that class of goods sold by American houses. I am informed by a dealer that the best price he can get from American manufacturers on a lantern of the description used here is $5.50 per dozen, while he secures a lantern from Germany at $2.68 per dozen, delivered at Kingston. He exhibits an order of 25 dozen, recently received, the price being $1.87 per dozen packed, including glass and wick, f. o. b. at Hamburg.

"The lantern is of tubular form, with oil chamber about nine-tenths the size of the American standard, but with the other dimensions the same. A spring lift for disengaging the glass is operated from the handle, and there is a sly, engaging each of the two supports, to which are attached iron rings to guard the glass, and which slip up to allow the glass to be removed. The support for the glass is perforated and the wick is operated in the same manner as other lanterns.

"The American lantern is of a better class, but if the manufacturers of the United States can make a lantern of the description indicated and furnish it at a price to compete with the German lantern, a good trade could doubtless be secured. The lanterns retail here at 1s. 6d. (36½ cents) each."

RETAIL HARDWARE DOINGS.

NEW FIRMS AND CORPORATIONS.

North Ft. Worth, Tex.—The Citizens Hardware Co. has been established with a capital stock of $7,000. The officers are: J. W. Strain, J. P. Shirley and C. V. Cox.

Coleman, Tex.—J. E. Stevens Hardware & Furniture Co. has been incorporated with a capital of $30,000. The incorporators are: J. E. Stevens, W. J. Stevens and T. L. Stevens, all of Coleman.

Heavener, Okla.—The Heavener Hardware & Furniture Co. has been incorporated with a capital stock of $5,000, to handle stoves, ranges, etc. The incorporators are: R. L. Walker, L. O. Day and O. B. Hudson.

Brozoria, Tex.—The Harris-Badge Hardware Co. is opening a hardware store here.

Lake Arthur, New Mexico.—The Brown Hardware Co. has been incorporated with a capital of $20,000.

Greenwood, Miss.—The Henderson & Baird Hardware Co. has been incorporated for $125,000 by T. H. Baird, A. Henderson and T. R. Henderson. They have been in business for some time.

Fort Morgan, Colo.—The Prince-Martin Hardware Co. has been incorporated for $10,000 by S. M. Martin and H. D. Lenocker.

Salina, Kans.—Wm. Starrett of Salina and Elmer Starrett of Great Bend will engage in the hardware business here.

Bowen, Ill.—Leon Chevillor will open a hardware store in this town.

Galveston, Tex.—The Boddeker & Lyons Hardware Co. has been organized with $15,000 capital, by James A. Boddeker, Robert A. Lyons, Jr., and E. H. Compton.

Prescott, Ark.—The Prescott Hardware Co. will open a new store at Murfreesboro.

BUSINESS CHANGES.

Wagoner, Okla.—Henley Bros. Hardware Co. has purchased the stock of the Wagoner Hardware Co. The business will be managed by H. F. Henley, formerly a traveling representative of the Malleable Steel Range Co., South Bend, Ind.

Harrisonburg, Va.—The Valley Hardware Co. has been absorbed by the J. M. Snell Grocery Co., and both businesses will be operated under the name of the Snell Grocery & Hardware Co.

Des Moines, Ia.—Ruth and Clark have purchased the hardware store of L. C. Clifford.

Kankakee, Ill.—P. W. Worth has sold his hardware establishment on Main street to E. A. Jeffers and James McCune.

Rochester, Mich.—McCreery & Myers have purchased the hardware business of H. L. Wood & Son.

Gorin, Mo.—Tom Williams has disposed of his hardware business to J. K. Schacklett.

Columbiaville, Mich.—Ed McGunegle has purchased the hardware business of H. D. Butler.

Baring, Mo.—C. H. Hayes has purchased the stock of the Baring Hardware Co.

Auburn, Neb.—W. D. Sanders has disposed of his hardware stock in Tecumseh to G. W. Thomas and Edgar G. Smith of Auburn.

Wichita, Kans.—John Yungmeyer has purchased the hardware stock of C. O. Page & Co. at 518 Douglas avenue.

MISCELLANEOUS.

Hutchinson, Kans.—The building occupied by the Sawatzky Hardware Co. is completed. The store will be ready for business soon.

Texhoma, Okla.—The stock of Pottinger Bros. Hardware Company was destroyed by fire.

Waverly, Minn.—T. K. Kelly is reported to have filed a petition in bankruptcy with liabilities of $6,035 and assets of $6,578.

Montpelier, Ind.—The Cheney Hardware Store suffered a loss by fire.

Hutchison, Kans.—The store of the Colladay Hardware Co. has been undergoing extensive improvements.

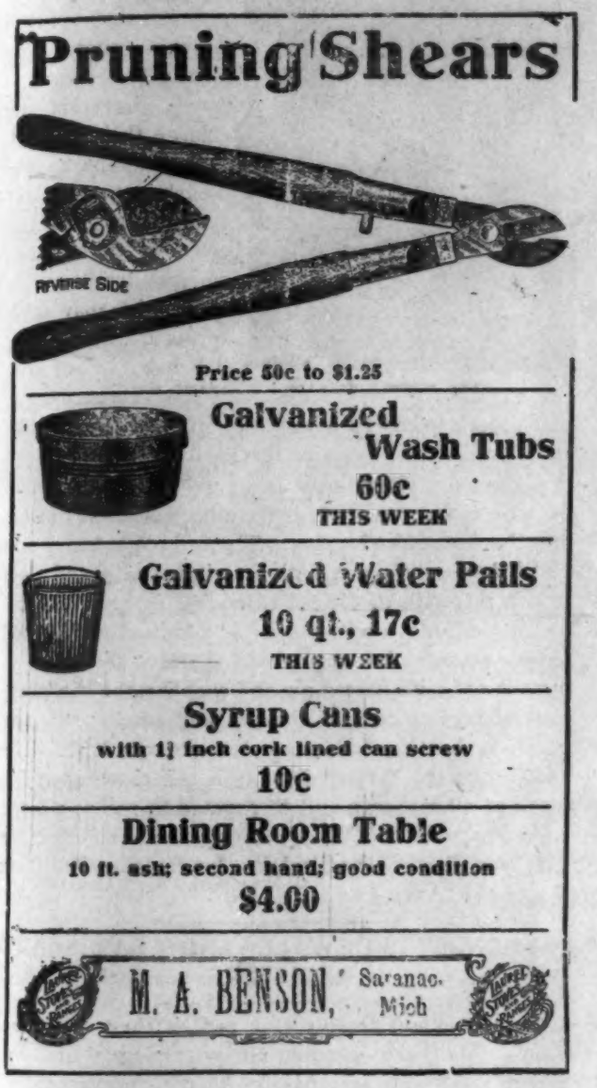
Ox Bow, New York.—The hardware stock of N. C. Hinsdale was destroyed by fire, but has been reopened with a new stock.

Claysville, Pa.—Plants & Blayney are remodeling the Bell hotel property previous to occupying a portion of it as a tinshop.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

A very good advertisement is that of M. A. Benson of Saranac, Mich. It is characterized by good and uniform type selections, good display and excellent arrangement. The use of rules separating the various



items enumerated can scarcely be commended, however. Such rules are no longer used in the best advertisements. Mr. Benson, nevertheless, has an advertisement which, on the whole, is much better than the average ad appearing nowadays in the newspapers. It occupied 8¼ inches of space two columns wide in the *Saranac* (Mich.) *Advertiser* of a recent date.

* * *

The advertisement of the White Hardware Co. of Racine, Wis., while being an example of good typographical work, is not as effective as it might be. The first line would convey the impression that the ad was one of The United States Signal Service. A pointed statement or two regarding the advertiser's stoves and furnaces might have been used to much better advantage at the head of the advertisement than the two lines that have been used. It is usually good policy to feature the article or articles advertised in the display line, which has not been done in this case. In other respects the ad of the White Hardware Co. is a commendable one. It appeared in the *Racine* (Wis.)

Daily Journal of a recent date and took up two inches of space, two columns wide.

* * *

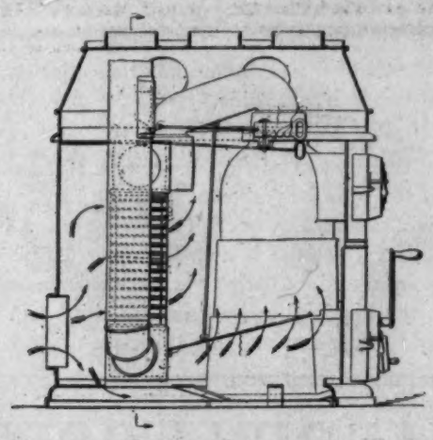
The advertisement of the Honeyman Hardware Co. of Portland, Oregon, shown herewith, is, generally speaking, a satisfactory one. The arrangement is good and the display feature is a strong one. Suitable type has been used and excepting the two superfluous rules between the first and second and the third and fourth lines the ad does not call for criticism of an adverse

character. The Honeyman Hardware Co. are to be congratulated upon the general appearance of their advertisement. It appeared in a recent issue of the *Portland* (Ore.) *Evening Telegram* and occupied 7½ inches of space, two columns wide.

Heating and Ventilating

A NEWLY PATENTED WARM-AIR FURNACE.

Charles C. Knauss of Philadelphia, Pa., was on March 23 granted a United States patent on a warm-air furnace, which he has assigned to the Tubular Heating & Ventilating Co., Philadelphia, Pa. The application for the patent was filed on July 9, 1908. The furnace has a cold-air inlet and hot-air outlets, and in combination with the fire-pot is a flue manifold, arranged to convey the gases of combustion from the



New Type of Warm-Air Furnace.

fire-pot, comprising opposed headers connected by flue tubes having radiating flanges. The smoke pipe is connected with both of the headers. Means are provided whereby the gases of combustion may be selectively directed from the fire-pot to the smoke pipe, through one of the headers or through both of the headers and the tubes connecting them. A diaphragm which extends from one of the headers and embraces the fire-pot, is arranged to direct a portion of the air entering the air inlet forwardly to the fire-pot.

"TORRID ZONE" FURNACES.

The Lennox Furnace Co., Marshalltown, Iowa, report that they are having a very successful season's business with their celebrated line of "Torrid Zone" Steel Funaces. The "Torrid Zone" furnace is made of heavy steel plates, riveted like a boiler, and is guaranteed to be absolutely gas, smoke and dirt tight. In this furnace there are no single packed joints to loosen and leak gas. The fire-pot in sections, is entirely enclosed within the steel dome. The extra radiator, with eight feet of indirect smoke travel, with both direct and indirect draft, and with upright and vertical smoke travel throughout, which prevents soot and ashes from collecting and retarding radiation, makes the "Torrid Zone" such a powerful heater, according to the makers, that it has won an immense sale throughout the Canadian Northwest, where none but the best can battle with a northern winter. The "Torrid Zone" furnace possesses the following features: Double feed doors; sectional fire-pot—replaceable through the fuel doors; perfect arrangement for hot blast; patented dove-tailed locking device for collar connecting the radiator to the main body. When writing the Lennox Furnace Co., for catalogue and prices, kindly mention THE AMERICAN ARTISAN.

THE "WISE" FURNACE.

The "Wise" Furnace Co., Akron, Ohio, have recently issued a catalogue in which they take occasion to state that "Wise" Furnaces are unexcelled for durability, economy, simplicity, capacity, and general practical every day results. It is the company's intention to enlarge their field of operation and to establish agencies in every section of the country, giving exclusive territory to those who may wish to handle their line. The base of the "Wise" furnace is

The "Wise" Furnace.

cast of one piece forming the bottom of the ash-pit and a substantial support for the outside galvanized iron casing. The ash-pit is of good depth, fitted to the base with a cup joint, preventing the escape of dust into the warm-air chamber. The fire-pot is heavy and cast in one solid piece, with a series of cells and slots cast in the walls of the pot extending from the bottom to the top, into which the air is admitted and heated before entering into and above the fuel, thus supplying the fire with heated air and enabling the consumption of 90 per cent of the gas and smoke, securing good combustion and generating intense heat. The radiator of the "Wise" furnace is self-cleaning and is made of all cast iron and corrugated to secure a large radiating surface. When writing the Wise Furnace Co., for further particulars, kindly mention THE AMERICAN ARTISAN.

"SYMONDS" SIDEWALL AND BASEBOARD REGISTERS.

The Stockhoff Supply Co., 107 N. First street, St. Louis, Mo., are distributing a catalogue of "Symonds" sidewall and baseboard registers, manufactured by The Symonds Register Co., 1102-04 Madison street, St. Louis, Mo. The No. 120 for first floor work only, takes a supply pipe three inches wider than the studding. The Nos. 124 and 128 take a pipe 4¼ inches wider than the studding. To open the register it is only necessary to push in the top of the grill with the foot. To close it, it only requires pushing down on the bottom of the grill. The Nos. 108, 110, 112 and 114 "Symonds" registers have flanges ⅞-inch wide on sides, and they set flush with the baseboard. They are intended for second floor work, but may be used for first floor also. The No. 312 is desirable when installed in old houses, as less care is required in cutting out the baseboard, as the register sets over the baseboard. The No. 131 is a wafer register and intended for use in plaster walls

above the baseboard, and for thin partitions and narrow pipes. When writing for further particulars concerning Symonds registers, kindly mention THE AMERICAN ARTISAN.

THE "MAJESTIC" WARM-AIR HEATER.

The Majestic Furnace & Foundry Co., Huntington, Ind., report a very successful season's business with their "Majestic" warm-air heater. They state that it is an original and new idea for generating warm air. It is made of the best quality of No. 1 pig iron, and the large corrugations allow for expansion and contraction. The radiator is confined inside the combustion chamber avoiding exposed joints, there being but two in the air-chamber. These joints will hold a sufficient amount of cement to insure them against any danger of leakage of gas or smoke. Wood can be burned horizontally in the combustion chamber on sectional flat wood grates which lie on top of the fire-pot. As the radiators are very easy to clean, the poorest quality of soft coal can be used if desired. In cleaning the radiator, the operator scrapes the soot to the back where it falls to the bottom and by opening the damper in cast elbow will pass directly into the ash-pit. This damper also acts as a dust flue and can be used for check draft in addition to the one in the pipe. Each furnace is supplied wtih a heavy steel ash pan which avoids the inconvenience of making dust in the cellar when taking out the ashes. The casing is made with one sheet of galvanized iron which is attached at the bottom on each side and drawn into position and tightened at the curve by means of a clip and bolt. One excellent advantage of this heater is the low-down feature, as it can be placed in a basement five and one-half feet in height. When writing The Majestic Furnace & Foundry Co. for further particulars, kindly mention THE AMERICAN ARTISAN.

CONDUCTING A WARM-AIR FURNACE BUSINESS.

The following timely advice on the installation of warm-air furnaces and how to successfully and profitably manage a furnace business, is contained in the "Handy Furnace Estimating Book," which F. Meyer & Bro. Co., Peoria, Ill., are distributing free to the trade:

"As in all other things, competition has reduced the profits on furnaces and furnace work. For this reason the dealer often buys a cheap furnace and fittings, and employs cheap labor in order to save money, and thereby enlarge his margin. But in almost every case the furnace does not give satisfaction. The purchaser will not pay until it is made right. Three or four trips, and sometimes more, are made to adjust pipes or substitute larger ones, sometimes even doing the whole job over again. The dealer figures up the amount of time lost, and finds the balance on the wrong side.

"The only way to make the furnace business a success is to do it right, so that when the furnace is set and the pipes connected it does not require any more looking after.

"A poor furnace, properly set, generally gives better satisfaction than a good furnace not put in right. But a good furnace, properly set, is a better advertisement than a page in the Sunday paper.

"It is important to sell a good furnace. It is important to put in a furnace of ample capacity. It is important not to guarantee more heat than a furnace can easily make. It is important not to guarantee to heat without burning fuel. It is important to set the furnace as near under the center of house as possible. It is important to use good pipes and fittings. It is important to run all pipes as short as can be done. It is very important to use pipes that are large enough. It is very important to put up all work in first-class shape. It is also of great importance to collect for furnace work shortly after the work is done, as the furnace seldom gives satisfaction until paid for."

THE MODERN APPRENTICE.

According to an Old Journeyman.

"Sixty years ago, when I was apprenticed to the plumbing trade, we didn't have no 'blessed' technical schools to waste our time in; we had the school of hard work instead, and we made craftsmen in those days, we did; not weak-kneed, high-collared, school board imitations, whose only skillfulness is a masterly evasion of anything in the nature of work and a marvelous dexterity in keeping out of the line of vision of the 'boss.'

"Our budding craftsmen in my young days were bright and intelligent chips of humanity, early and eager at the shop, gluttons for work, and if ever they glanced at the clock it was to deplore the excessive speed at which it traveled. Different in these degenerate days!—Nothing but an aggregation of slothful, careless, clock-gazing, juvenile loafers. While their eyes are open they are fixed with a wistful 'long-for-six' expression on the nearest clock. After the timepiece, 'How Hickey scored that goal' is the dearest occupant of their technically-educated minds and the readiest subject for discussion, and when the 'knocking off' time comes at the conclusion of their foreman-dodging day they are half a mile away before the clock ceases striking—'Must be in time for the technical class, you know,' and straight away go these depraved and degenerate striplings, who vainly imagine that they will be able to reproduce *our* work some day, to pursue their studies from the Pit of the 'Empire' or the 'Palace.' Modern education—Bah!"—*Plumbing Trade Journal*, London.

The Sawyer Down-Draft Heating Co., Kittery, Me., has been incorporated with a capital stock of $200,000 by president and clerk, H. Mitchell, Kittery, and treasurer, S. J. Morrison, Portsmouth, N. H.

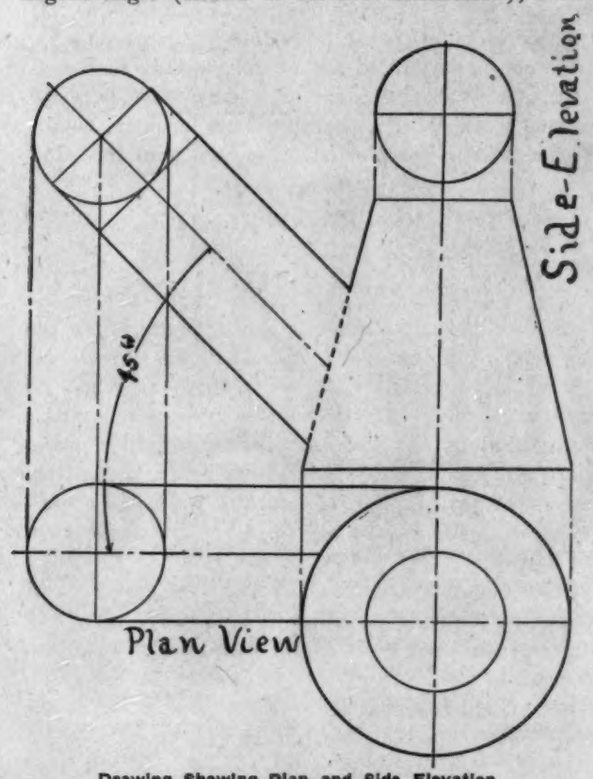
Success in storekeeping comes through keeping the overstocks down; keeping the variety up, keeping the goods plainly marked, keeping the bargains attractive, keeping the public informed, keeping the store and its people clean, inside and out—and keeping at it all the time.

Tinshop

PATTERN FOR FRUSTUM OF A CONE.

To THE AMERICAN ARTISAN:

In the request of W. E. Downing, of Wichita, Kan., given in THE AMERICAN ARTISAN of February 6 for a solution to the problem of a frustum of a cone intersected by a cylinder at one side of the center, at a 45-degree angle (shown in the first illustration), I find



Drawing Showing Plan and Side Elevation.

by extending the center line of the cylinder that it intersects the center line of elevation, outside of the cone, and therefore presents a condition which cannot be solved, as part of the cylinder will be too far to the left of the cone to ever touch the cone.

From the plan I would infer that Mr. Downing wants a cylinder to intersect a cone (or frustum of a cone) at an angle, and to be between the center line and the outline of cone, the cylinder is placed as high up on the cone as possible, to make the intersection.

The following solution is offered to explain this problem:

Draw outline of cone of right taper, Fig. 2 (page 31), with plan and plan of cylinder, Fig. 1, and from which plan project outline of Fig. 3. Space profile of cylinder in plan and draw lines from the points parallel to *C B E*, indefinitely. In Fig. 4 draw a half-section of the cone, with the cylinder at the angle wanted. Draw a line *e' f' g' h'* parallel to the center line, which line represents the edge of a flat surface, of which *e f g h* is the surface. Space the profile of the cylinder and from points draw lines parallel to the outline of cylinder, indefinitely, through section of cone. From the points where these lines pass through *e' f' g' h'* develop the opening in the surface *e f g h*, producing an ellipse. The cylinder now passing through this opening, to intersect with its lines the various points on the surface of the cone, cannot be placed any higher than this ellipse will be contained in that half-section in elevation on the line *A D* of Fig. 1, represented by *A" B" C"* of Fig. 3.

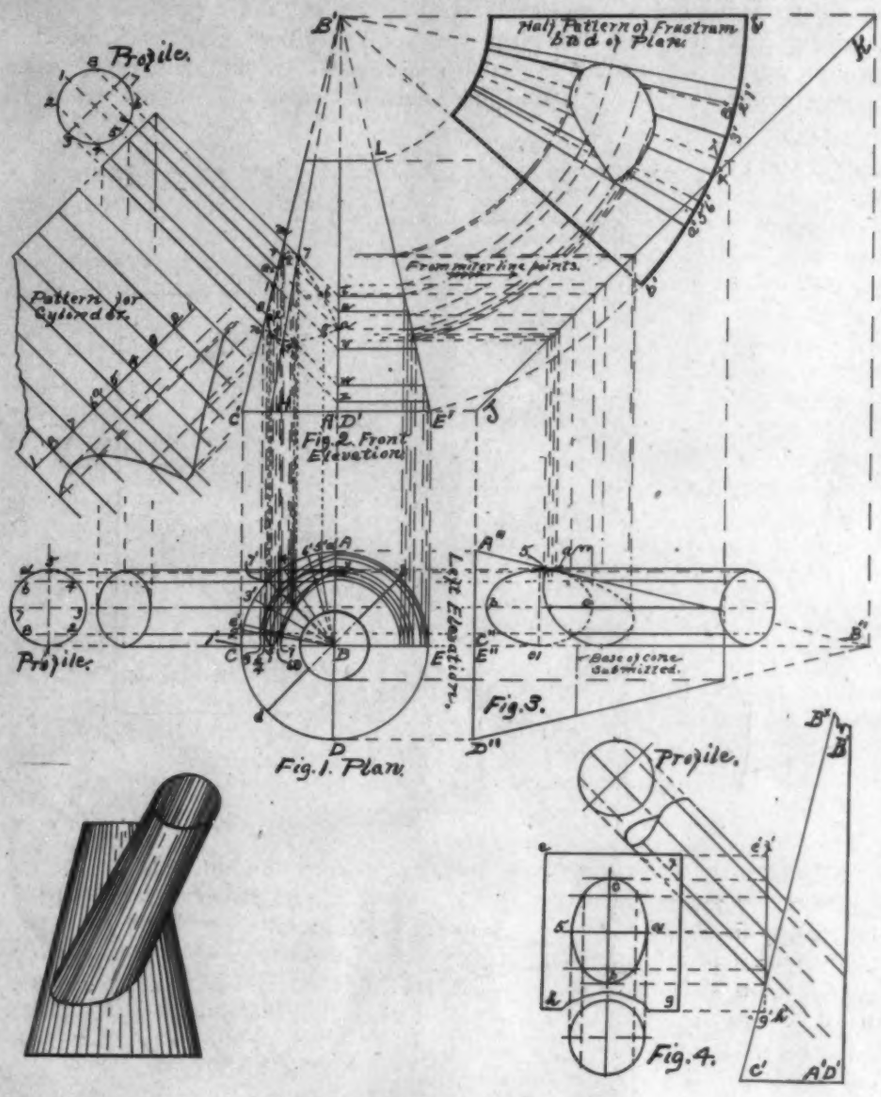
Place the ellipse from Fig. 4 with the line *o p* on the line *7 3* (from the profile) in Fig. 3, until some point on the ellipse touches the line *A" B"*. Then this point will be a fixed point and will also be the end of the longest line on the cylinder and be the point from which the cylinder in the front elevation is constructed. Project the point a^{vv} to the profile of plan where it intersects the profile at *a*, and also by the angular projection to the line *B', A' D'* of Fig. 1, the line *B' A'* being the line as *B" A"* of Fig. 3 only appearing in a different view. From the profile of Fig. 1 it will be seen that the outline 5 of cylinder is not tangent in plan to any part of the cone, as might first appear. The line *a* is the only one that is tangent in plan. From *a* in Fig. 2 draw a line at the required angle of the cylinder, and from Fig. 1 place profile with the point *a* on this line. The profile from plan transferred to the elevation revolves one-fourth of its circumference. Draw parallel lines to *a a'* from the profile to line *B', A' D'* in the front elevation, Fig. 2, and from these intersections, parallel to base line *C' E'*, to line *B' E'*, these lines being lines in elevation of circles. Project points on *B' E'* vertically to line *B E* of plan. With *B* as a center and the points on *B E* as radii describe quarter-circles which are the plans of quarter-circles in elevation.

The cylinder intersects the cone at such an angle that the sections produced on such a cut would be elliptical, and it follows that each line on the cylinder will intersect some point on an ellipse. The section *6 8* will intersect points on an ellipse which is shown in elevation by the line *r u*, and the section *1 5* on an ellipse which shows in elevation by the line *1 v*, etc. Elliptical sections could now be developed and the points of intersection obtained. However, if we find the plans of these ellipses and intersect them by the plan lines of the cylinder, it will produce the points of the miter line in plan. Project the points *m, r, a², 1, s, n,* to the line *C B* of plan The points on *C B* are numbered the same as from the profile and not from the letters, in order to prevent confusion in further intersections, the small letters only being used to point out the quarter ellipses in elevation. Space the arc *A C* into two spaces and from *B* draw a line to this point. This line occupies almost the same space as *B 7'* and is shown as a dotted line, and the point on the arc will be, for our purpose, designated *7'*. Project point from *7'* vertically to line *C' A'* of Fig. 2 as *H* and draw line from *H* to the apex *B'*. Project the points of intersection on the line *H B'* with the lines on cylinder vertically to *B 7'* of plan. Develop the plan lines of the quarter ellipses in elevation, of each of which we have three points, on lines *C B, 7' B* and *A B*. More should be used for greater accuracy, but the numerous lines will not permit in this small drawing. More points would be acquired by further spacing the arc *A C* and proceeding as has been done on line *7' B* in plan, and *H B'* in elevation. Having previously drawn lines from the profile in plan, we find that the

intersections of these lines with the plan lines of the quarter ellipses will be points in plan of the miter line. Connecting the points will produce the miter line in plan.

Project the points in miter line of plan of the same number, to the lines on cylinder of same number, which intersections will produce the points in the miter line in elevation. Connect these points to obtain miter line. From the miter points draw lines to the right parallel to line *C' A' D' E'* till they intersect the angular projection line *J K*. From the intersections where these lines cross line *B' E'* will be points from which to describe arcs, to obtain the opening in the cone. Project the points on line *J K* to lines, in Fig. 3, of the same number from profile Fig. 1, fixing the miter points in the left elevation. Connect the points, producing the miter line. From *B* in Fig. 1 draw lines through the miter points to the arc *A C*, numbering the points on the arc the same as the points through which the lines have been drawn. Taking the various distances from the semi-circle *b A C d*, place them on an arc in Fig. 2 described from *B'*, with *B' E'* as radius. Also describe arc from *B'* with radius *B' L*. Draw lines from the several points on arc *b' d'* to *B'*. Intersect these lines with arcs of same number described from points on line *B' E'* that were horizontally projected from the miter points. A line drawn through these intersections will produce the opening in the pattern for the cone.

For the pattern of the cylinder lay off a stretchout parallel to cylinder, taken from points in the profile, and lines drawn through these points intersected by lines drawn from miter points at right angles to cylinder, will give the pattern for cylinder.



Drawings Showing Solution to the Problem.

"San Francisco."

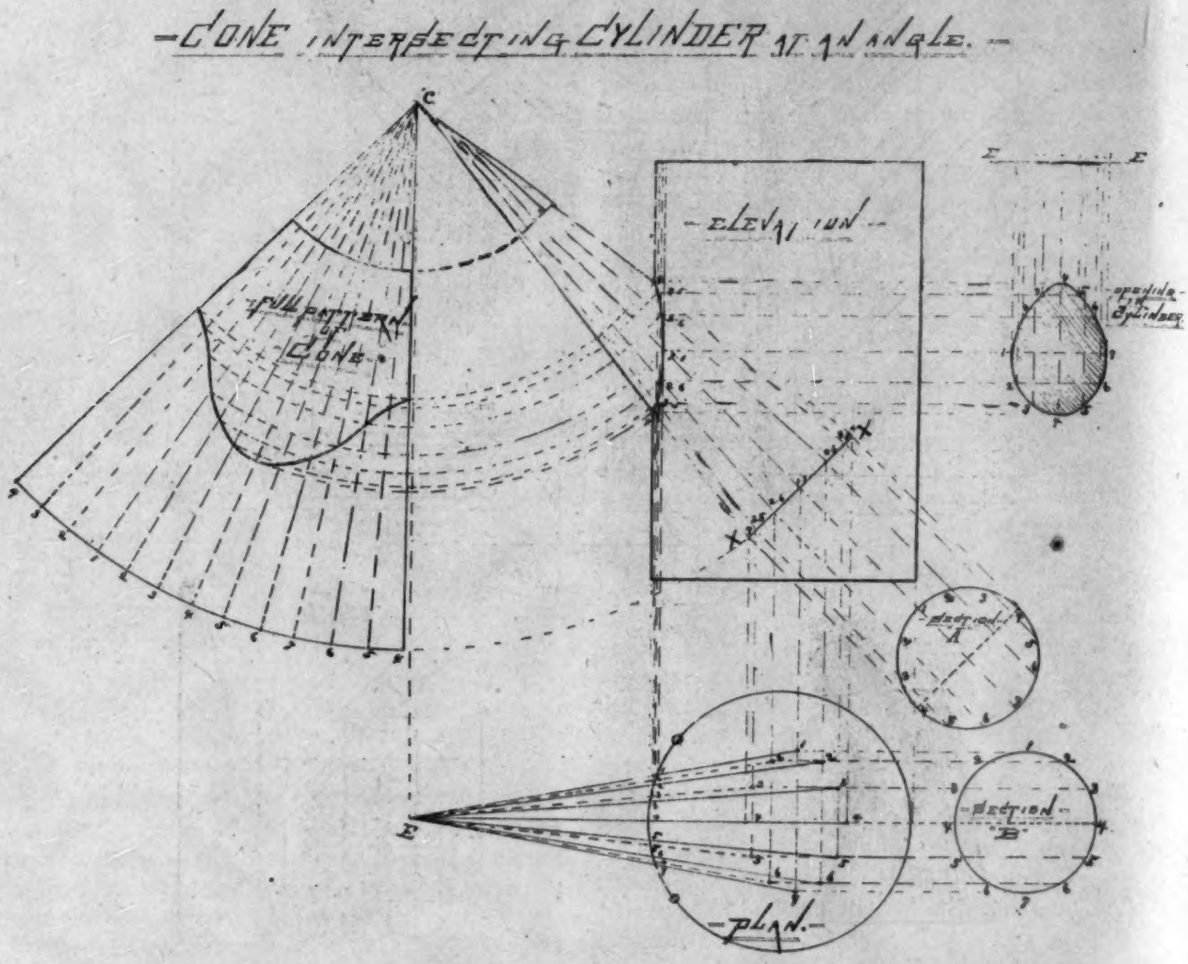
San Francisco, Cal., March 4, 1909.

The Master Sheet Metal Workers' Association of Brooklyn, N. Y., reports that the apprentice class, which is being conducted at Pratt Institute under the charge of William Buchanan, is a very pronounced success. An exhibition of the work performed by the students was recently given and was the subject of much favorable comment by the members of the Brooklyn local. At the last meeting of the association the announcement was made that a committee had been appointed to confer with a committee from the Master Plumbers' Association of Brooklyn, to promote the cause of trade protection.

CONE INTERSECTING CYLINDER AT AN ANGLE.

BY G. L. GRAY.

First draw elevation of cylinder within which draw the cone as required; next draw section *A*, and space into equal number of parts; then draw lines from all points in section *A*, intersecting line *X X* in elevation. From all points on line *X X* drop lines through plan indefinitely; also draw lines from all points in section *B*. Draw lines intersecting lines dropped from line



X X, as shown in plan, by *1, 7, 1*. Draw lines from these points to point *E*, which is dropped from apex *C*. This gives the true plan of intersection. From all points on arc *O O*, erect lines from all points *1* to *7*, intersecting lines of corresponding numbers in elevation, which gives true miter line of cone intersecting cylinder. Draw full pattern of cone and hole on cylinder same as previously explained.

CATALOGUE OF THE ELLIOTT MFG. CO.

The Elliott Mfg. Co., Warren, Ill., are distributing their new catalogue No. 10 illustrating and describing their extensive line of patent anti-rusting tinware. The company states that the increasing popularity of Elliott goods is due to the fact that they manufacture a line of anti-rusting tinware of the finest quality, backed by a responsible guarantee and by fair, honest, courteous treatment of their patrons. Their raw material is of the highest quality and is treated by their patent process and manufactured by skilled labor. The company's catalogue No. 10 measures 6 x 9 inches, contains 112 pages and gives a complete description of the Elliott line. Among the articles listed may be mentioned the following: Anti-rusting pails, decorated pails, sanitary strainer pails, tin cups, dippers, cream pails, milk strainers, tea kettles, a large assortment of wash boilers, coffee pots and boilers, tea pots, measures, sprinklers, covered pails, dinner pails, preserving kettles, sauce pans, milk pans, pudding pans, wash basins, lard cans, dishpans, bread raisers, oil cans, toilet sets, bath tubs; heavy and medium galvanized wash tubs; galvanized oil and gasolene oil cans; galvanized pails; heavy galvanized measures; galvanized sprinklers, ash barrels, ash sifters, coal hods; galvanized sanitary cuspidors; plain pails and plain strainer pails; plain cream pails; funnels; plain pie plates; dust pans; wash boilers, etc. When writing the Elliott Mfg. Co., for catalogue, kindly mention THE AMERICAN ARTISAN.

CATALOGUE NO. 10 OF THE DELPHOS MANUFACTURING COMPANY.

The Delphos Mfg. Co., Delphos, Ohio, manufacturers of galvanized iron products, are distributing their catalogue No. 10, which is a book of 64 pages and of very attractive design. In it are illustrated and described the company's line of Oil Cans, Tanks and Dispensers, etc. The cover of the catalogue is made to represent a sheet of galvanized iron, which, in ap-

pearance, it resembles as closely as it is possible for it to do. The first article described in the catalogue is the Delphos Non-Overflow Pump Can. This can has a hinged cover which conceals the pump, keeps out the dirt, and during the winter keeps the pump free from snow and ice if exposed to the weather. The cover has a neat spun edge, an enameled knob to raise it and a spring catch to hold it in place. The pump is a "force pump" and siphon combined, this construction making it possible either to fill or empty a receptacle with the pump. The pump is screwed into the can and fits close to the bottom, with a small wire soldered to the bottom of the pump so that the can may be drained. The company has also added a new feature which makes it possible for any person to unscrew a zinc screw cap and remove the plunger rod to replace the washer, should it at any time become defective. The top of the Delphos can is made of the best tin supported by galvanized iron braces, which makes the breast so rigid that a man can stand on the can. Among the other articles described in catalogue No. 10 may be mentioned the "Paragon" non-overflow oil can, especially adapted for oil routes; the "Ohio Junior" pump can; "Never Leak" brand of spout cans, faucet cans, lay down or rancher cans; supply cans for grocers, automobiles or railway use; "C. C." cans, squat or railroad pattern; "Lilac" all tin oil cans; "Legal" gasolene cans; Delphos non-overflow factory dispenser for filling hand oilers; Delphos non-overflow pumps for large tanks; pump tanks for dealers or domestic use; oily waste cans with self-closing covers; shipping and supply cans; the "Standard" self-lighting lantern; Delphos long-handle dust pans; Delphos Gem pans; Delphos corn poppers; tinners' mallets; faucets; spouts, etc. When writing the Delphos Mfg. Co. for catalogue No. 10, kindly mention THE AMERICAN ARTISAN.

THE "GEM" MILK BUCKET.

The Standard Stamping Co., 2000-2006 North Broadway, St. Louis, Mo., manufacturers of a complete line of tinware and galvanized ware, have placed on the market the "Gem" Milk Bucket, shown in the accompanying illustration. The manufacturers state that it embodies all of the best merits in milk buckets. The "Gem" has a removable wire cloth strainer and is therefore adapted for either a strainer pail or an ordinary dairy pail. The strainer is constructed of steel with wire cloth, and can readily be converted into a cloth strainer by covering the frame with muslin and inserting the frame in place. The strainer can be removed and cleaned in a moment. The pail is made of heavy IX tin plate and has a raised bottom, making it strong and durable. It is perfectly sanitary and the pails nest very closely.

The "Gem" Milk Bucket.

When writing for catalogue, kindly mention THE AMERICAN ARTISAN.

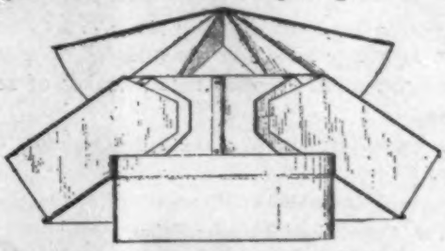
OILY WASTE CAN WITH SELF-CLOSING COVER.

In the accompanying illustration is seen a new type of oily waste can with self-closing cover, which has been put on the market by the Delphos Mfg. Co., Delphos, Ohio. This can has been recommended and approved by the Insurance Companies, according to the manufacturers. It is made in all sizes and of 26-gauge galvanized sheets, with wide enameled band, top and bottom. It is provided with heavy galvanized strap iron feet. No. 1 size measures 12 x 15 inches, No. 2, 12 x 18 inches, and No. 3, 15 x 20 inches, having a shipping weight, respectively, of 145 pounds to the dozen, 200 pounds to the dozen and 250 pounds to the dozen. The Delphos Mfg. Co. packs these oily waste cans ¼ dozen in crate. When writing for prices, kindly mention THE AMERICAN ARTISAN.

Oily Waste Can of the Delphos Mfg. Co.

A NEW CHIMNEY-CAP AND VENTILATOR.

Robert T. Merrill of the Crown Ventilator Co., Milwaukee, Wis., has been granted a United States patent on a chimney-cap and ventilator. Mr. Merrill filed the application for the patent on August 24, 1908, and on March 23 it was granted. The chimney-cap and ventilator comprises a draft tube, a conical deflector provided with a central opening and connected to the tube, and a second conical deflector provided with a central opening located above and spaced from the first mentioned conical deflector. Radial ribs connect the two deflectors and extend toward and terminate near the vertical center of the draft tube and within the space beneath the opening in the upper deflector to constitute baffle plates to deflect upwardly the air which enters between it and other ribs and direct it through the opening of the upper deflector. A cap portion is connected to the upper deflector.


Patented Chimney-Cap and Ventilator.

STATUARY NOT MANUFACTURE.

The Board of General Appraisers has sustained a protest lodged by a New York importing firm regarding the duty on small pieces of bronze statuary. The appraiser characterized the works as manufactures of

metal and marble, metal chief value and assessed duty at the rate of 45 per cent. The importers said the goods were "statuary" and therefore dutiable at 15 per cent. To support its contention the Government held that the work performed on the bronze by the artist constituted labor and brought the bronze pieces within the meaning of "manufactures." Judge Waite, however, took a different view, and in sustaining the protest, said in part: "We do not think the work done by hand by the artist upon the metal can be termed superficial, or in any way incidental. It is real, substantial cutting, and changes to a considerable extent the general surface and exterior of the casting as it comes from the mold. Following our previous decision upon importations of the work of this same artist we sustain the protest."

NOTES AND QUERIES.

ANGLE IRON.

From O. H. Neuenfeldt, Enderlin, N. D.

Where can I buy 1" x 1" x ⅛" angle iron?

Ans.—Joseph T. Ryerson & Son, 16th and Rockwell Sts., Chicago.

COBURN BARN DOOR TRACK AND HANGERS.

From D. R. Clark, Iowa Falls, Ia.

Who manufactures Coburn Barn Door Track and Hangers?

Ans.—Coburn Trolley Track Co., Holyoke, Mass.

GLASS CREAM GAUGES.

From Guy Hasty, Winterset, Iowa.

Will you please tell me where I can get glass cream gauges with cast frames for milk cans, similar to what is used by separator manufacturers?

Ans.—Creamery Package Mfg. Co., 184 E. Kinzie St., Chicago; Geuder-Paeschke-Frey Co., Milwaukee, Wis.

REPAIRS FOR SEWING MACHINES.

From L. Baker, 349 North avenue, Chicago.

Will you please send me the address of a supply house which supplies repairs for all makes of sewing machines?

Ans.—Excelsior Supply Co., 233 Randolph street, Chicago.

LITHOGRAPHIC PICTURES.

From G. O. Terry, Good Thunder, Minn.

Will you please tell me where I can get lithographic pictures for the purpose of pasting on flue stops?

Ans.—Carqueville Lithographing Co., 75 La Salle avenue, Chicago; Edwards & Deutsch Lithographing Co., 2320-2332 Wabash avenue, Chicago.

ASBESTOS RINGS.

From Stove Dealers' Supply Co., Milwaukee, Wis.

Kindly tell us where we can purchase asbestos rings for the Wickless Blue Flames.

Ans.—George M. Clark & Company, 82 Michigan avenue, Chicago.

ENAMELED SIGNS.

From the J. C. Lewis Co., Antigo, Wis.

Can you advise us where we can obtain enameled signs?

Ans.—B. F. Chase Sign Co., 128 Fifth Ave., Chicago; Chase Electric Sign Co., Franklin and Washington Sts., Chicago; Enameled Steel Sign Co., 12 State St., Chicago; Baltimore Enamel & Novelty Co., Baltimore, Md.; Ingram-Richardson Mfg. Co., Beaver Falls, Pa.

SPRINGS MADE TO ORDER.

From G. O. Terry, Good Thunder, Minn.

Will you please give me the names and addresses of firms that manufacture springs to order?

Ans.—American Steel & Wire Co., 115 Adams street, Chicago; Wallace Barnes Company, Bristol, Conn.; Dunbar Bros., Bristol, Conn.; Miller & Van Winkle, Brooklyn, N. Y.

ITEMS.

The Belmont Stamping & Enameling Co., New Philadelphia, Ohio, is planning to erect an addition to its plant, 80x150 feet, which is made necessary by the increase in business.

The Rochester Perforating Co., Rochester, N. Y., has been incorporated to engage in the manufacture of metalware. The incorporators are: Frederick and Wm. J. Erdle and Leo. Leach.

The Federal Metal Weather Strip Co. of Milwaukee, Wis., has been incorporated with a capital stock of $125,000. The incorporators are: Charles A. Blohm, C. H. Chamberlin and Chas. H. Boden.

The Martin Metal Mfg. Co., Wichita, Kans., manufacturers of metal ceilings, tanks, etc., will erect a building, 140 x 158 feet, which will about double the capacity of the present plant.

The National Enameling & Stamping Co. is completing two large brick buildings at its Granite City (Ill.) plant, to be used for the special manufacture of enameled ware. The new plant will add about 100 additional employes to the company's force.

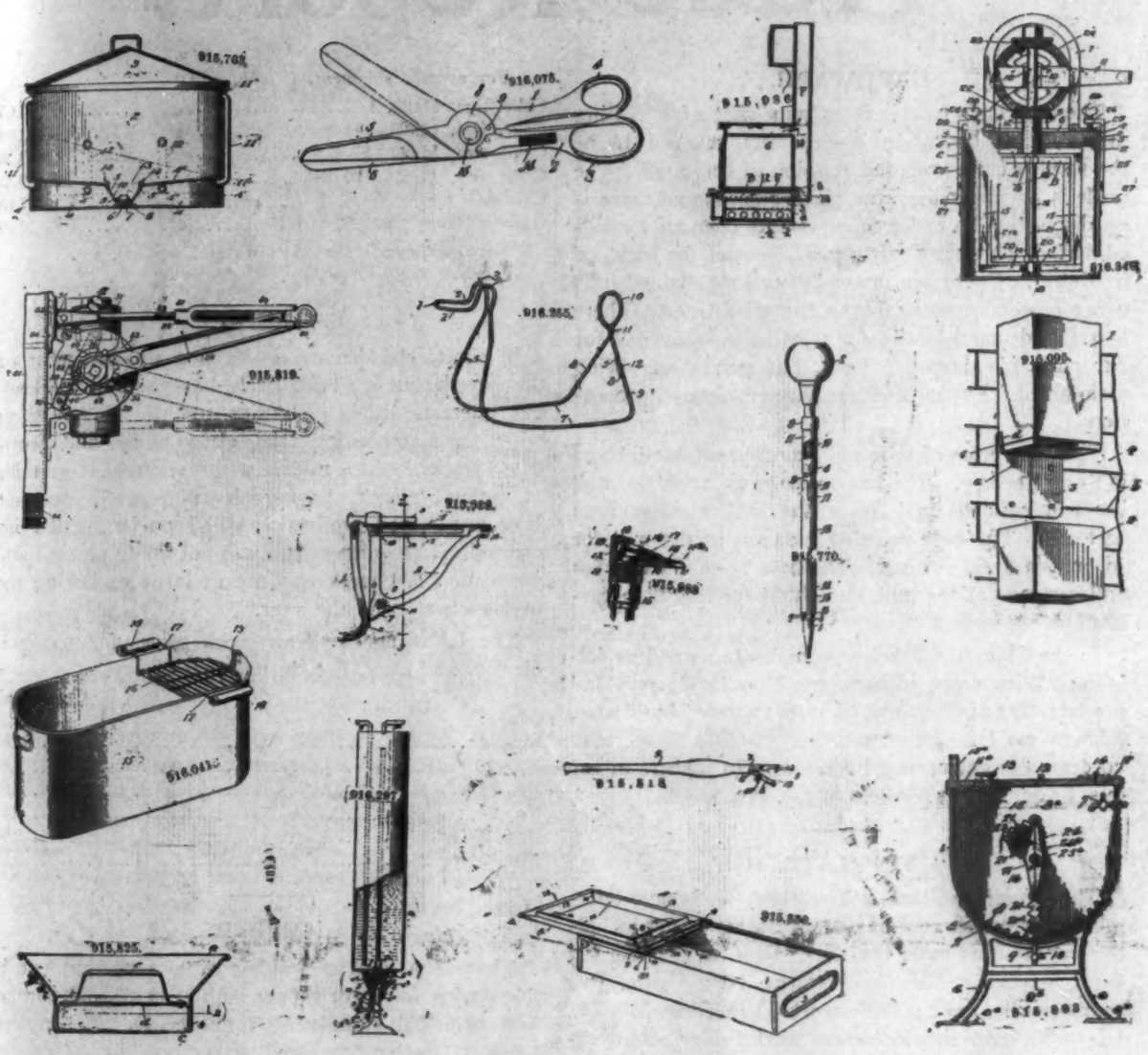
The Ohio Roofing Company of Cleveland, Ohio, whose plant was recently destroyed by fire, is erecting a new plant on a new site. The building will be two stories high, of brick construction, and will measure 62 x 71 feet. The company is reported to be in the market for new equipment.

The George W. Diener Mfg. Co., Chicago, has let the contract for a factory building at Kinzie and Monticello streets, three stories, 100x125 feet, of brick and mill construction. The company manufactures tinners' furnaces, gasolene appliances, hardware and sheet metal specialties and forged tools.

At a special meeting of the Manhattan Association of Master Sheet Metal Workers held in New York City last week, reports covering the work of the association for the past six months were presented by President Walter E. Melee, Vice-President I. H. Simpson, Secretary C. C. Moquin and Treasurer Peter Doerr. The reports were received with much enthusiasm by the members.

T. P. Walsh of the Master Sheet Metal Workers' Association of San Antonio, Tex., reports that the local is making good headway and is making preparations to send a large delegation to the National convention which will be held at Louisville, Ky., this summer. The San Antonio local gave a banquet on March 29 which proved to be a very enjoyable affair and an excellent opportunity for the members to discuss matters of mutual interest.

NEW PATENTS.



915,763—Clothes-Steamer. William B. Grover, Philadelphia, Pa. Filed Sept. 30, 1908. Serial No. 455,549.

915,770—Screw-Holder. Frank M. Jacobs, Waynesburg, Pa. Filed Nov. 15, 1907. Serial No. 402,309.

915,803—Washing Machine. Joseph Strauder, Mount Vernon, N. Y. Filed June 29, 1908. Serial No. 440,904.

915,818—Glass Cutter. Benjamin F. Baldwin, Springfield, Mass. Filed May 9, 1908. Serial No. 431,810.

915,819—Door Closer and Check. Joseph Bardsley, Montclair, N. J. Filed Sept. 30, 1908. Serial No. 455,558.

915,825—Milk Can Cover. Richard Bray, Arlington Heights, Ill., assignor to Bray & Kates, Arlington Heights, Ill., a firm. Filed Dec. 7, 1908. Serial No. 466,324.

915,850—Sheet Metal Box. Augustus B. Gonser, Canton, Ohio, assignor of one-half to Edward Willig, Canton, Ohio. Filed Aug. 5, 1908. Serial No. 447,051.

915,938—Grate Trivet. Alexander S. Cooper, Cookeville, Tenn. Filed March 24, 1908. Serial No. 422,904.

915,986—Kitchen Range. Charles H. Miller, Brooklyn, Ohio. Filed June 10, 1907. Serial No. 378,059.

915,989—Safety Razor. William J. Moore, Washington, D. C. Filed May 26, 1908. Serial No. 435,044.

916,041—Clothes Drainer. Alitia P. Shepherd, Chicago, Ill. Filed Oct. 11, 1907. Serial No. 397,004.

916,075—Shears—Anton Westerdahl, Carney, Mich. Filed June 4, 1908. Serial No. 436,682.

916,095—Down Rain-Spout. John Bien, Baltimore, Md. Filed March 24, 1908. Serial No. 422,943.

916,255—Lawn and Garden Hose Holder. John R. Barrows, Los Angeles, Cal. Filed June 20, 1906. Serial No. 322,645.

916,297—Water Heater. David N. Gibson, Homestead, Pa. Filed Dec. 11, 1907. Serial No. 406,084.

916,349—Churn. John B. Mellinger, Juniata, Neb. Filed May 7, 1908. Serial No. 431,367.

ALUMINUM SOLDERS.

With regard to the composition of aluminum solders, zinc appears to alloy with aluminum more readily than any other metal available for the constituent part of the solder; consequently all solders which will readily tin aluminum contain zinc in varying proportions. The solders which have been found to be most satisfactory are composed usually of tin, zinc, and a very small proportion of aluminum. These solders do not run very freely nor fuse as readily as ordinary solders, and it is necessary to use a higher temperature; so high, in fact, that extreme difficulty is found in using these solders with a soldering iron, and it is generally necessary to use a blast lamp.

Trade Report.

HARDWARE.

The hardware market is in somewhat of a waiting mood. This hesitation is generally believed to be the result of the proposed revision of the tariff. The trade is buying mainly for current needs and there is no disposition to make commitments over an extended period. There is a fairly good demand for builders' hardware. Prices are generally well maintained, this being especially noticeable in the wire trade. There is a fair demand locally for wire nails. The call for cut nails is somewhat light, but prices are being maintained. Buying of barb wire is of small proportions.

The base price of wire nails at the mill for jobbers is $1.90 per keg. The base price is $1.95 at the mill for full carloads and $2 at the mill for less than carloads. The base price of cut nails at the mill for jobbers is $1.80 per keg. The base price is $1.85 for full carloads at the mill, and $1.90 for less than carloads at the mill.

In the Chicago market wire nails are quoted as follows: Wire nails, jobbers, car lots, $2.08; retailers' car lots, $2.13; $2.20 out of store; painted barb wire, jobbers' car lots, $2.23; retailers' car lots, $2.28, with 30 cents for galvanizing; plain wire to jobbers in car lots, $1.93, and to retailers in car lots, $1.98.

TIN PLATE.

The American Sheet & Tin Plate Co. is now operating over 90 per cent of its tin plate mills, not including twenty-nine mills that have been on the idle list for two years. The Greer works, New Castle, Pa., twenty mills, the La Belle works, Wheeling, W. Va., ten mills, and the Pittsburg works, New Kensington, Pa., eight mills, were started after a long idleness, and the company now has over 200 active tin plate mills. The independent tin plate mills also are running practically full, and the outlook is regarded as encouraging. While the demand for a further concession in the price of tin plate bars was not granted by the large interests, which fixed $25.50 delivered at Youngstown, Wheeling, Steubenville and adjacent points, it is understood that independent steel concerns are shading the regular rate. This will enable the independent interests to continue operations, despite the heavy cut in prices recently ordered. Although it is rather early, the prediction is made that the canning season will be unusually good and result in a greater demand for tin plate than for several years past.

Quotations are as follows:

American coke tins, I. C., from store, New York:

Bessemer steel, 100 lbs., 14x20	$3.95@4.00
Bessemer steel, 95 lbs., 14x20	3.85@3.90
Bessemer steel, 90 lbs., 14x20	3.75@3.80

Am. charcoal terne, 8-lb. coating:

Worcester grades, 14x20, 107 lbs	4.05@4.10
Worcester grades, 14x20, 100 lbs	3.90@3.95
Worcester grades, 20x28, 200 lbs	7.75@7.85

For prompt shipment, f. o. b. mill:

Coke, tins, 14x20, I C	3.60@3.65
Coke, tins, 14x20, 100 lbs	3.45@3.50
Coke, tins, 14x20 95 lbs	3.40@3.45
Coke, tins, 14x20, 90 lbs	3.35@3.40
Charcoal, terne, 20x28, I. C	7.05@7.10
Charcoal, terne, 20x28, 200 lbs	6.75@6.80

Usual difference for odd sizes and weights.

SHEETS.

In sheets the demand is keeping up, but most of the new business placed lately has gone to the leading interest. It is operating 108 of its 176 sheet mills, the Leechburg works, eleven mills, and Scottdale works, nine mills, with several idle mills at other plants having been recently started. It is understood production will soon be further increased. The independents are not doing so well and production last week was not as large as during the first six weeks of the year.

The following are New York prices for 500-bundle lots and over, f. o. b. mill:

Gauge:	Galvanized, Net.
No. 30	$3.55
No. 29	3.45
No. 28	3.25
No. 27	3.15
Nos. 25 to 26	2.95
Nos. 22 to 24	2.75

COPPER.

There has been something of an improvement in the market for ingot copper both at home and abroad. The principal stimulating influence was the report, late last week, that about 50,000,000 lbs. of copper had been sold to go abroad, principally to legitimate consumers. Under the influence of this report there was renewed interest in the market and an advancing tendency in prices. Lake is now quoted at 13@13¼c, electrolytic at 12¾c and casting brands at 12.50@12.65c.

The London market has shown a moderate advance, after a week of considerable activity, wtih fairly wide fluctuations.

The statistics of the Producers' Association are expected to show about 50,000,000 lbs. exported in March, 90,000,000 lbs. delivered to domestic consumers and an increase in the current stocks of 20,000,000 to 25,000,000 lbs. This means that the available stock of marketable copper April 1 will be close to 200,000,000 lbs.

Extreme fluctuations for the year.

	Highest.	Lowest.
Lake	14.55	12.55
Electrolytic	14.25	12.12½
Casting	14.12½	12.00
London, spot	£64 2 6	£54 12 6
London, future	64 17 6	55 10 0
London, best selected	67 15 0	59 0 0

SPELTER.

Spelter is steady; New York quoting 4.85c and St. Louis, 4.65c. Boston quotes 5⅛@5¼c in a jobbing way.

ALUMINUM.

Moderate sales of aluminum are being made and the general tone is firm. No. 1 ingots for remelting are offered at 24c per pound, in ton lots, and No. 2 ingots, at 23@25c in car lots for 90 per cent pure. Rods and wire are being held at 32c a pound in ton lots, and sheets at 34c a pound in ton lots.

COKE.

Coke remains quiet and steady. There is a fair current spot business and local dealers are making fair shipments. Best grades of foundry coke are quoted at $2.25. Deliveries in the latter part of the year are being negotiated upon a basis of $2.50. Prices on furnace coke are more irregular and range about $1.55.

STEEL.

The situation in finished steel is very irregular, about all the activity being confined to structural material and steel plates. The former has shown a great deal of activity, the volume of business for March being the largest for any month on record. The bids submitted to prospective purchasers during the past four weeks are on contracts calling for over 250,000 tons of steel, and of this tonnage about 138,000 tons have been actually closed. This includes about 44,000 tons for railroad bridges, track elevation and crossings and 94,000 tons for all sorts of miscellaneous work, including highway bridges, office and commercial buildings, manufacturing plants, hotels and apartment houses. Of the structural steel required by the railroads, the New York Central is calling for 29,000 tons for its various lines, having again increased its requirements. The other railroad contracts pending include 11,000 tons for the Florida & East Coast, 7,000 tons for the Louisville & Nashville, 7,000 tons for the Missouri Pacific, 8,500 tons for the Erie, 10,000 tons for the Reading, 2,000 tons for the Boston & Maine, 4,000 tons for a grain elevator for the Boston & Albany, 9,000 tons for the Carolina, Clinchfield & Gulf, 10,000 tons for the Chicago & Northwestern, and many smaller contracts.

There has been a notable increase in the volume of steel building construction all over the country, except possibly New England. There is still 50,000 tons of new business pending, and about two-thirds of this is in New York and the central states. The largest prospective contract in the market is the Curtis building, Philadelphia, calling for 15,000 tons of steel, and there are a number of municipal contracts pending in New York and western cities. In the matter of prices, the market for structural steel seems to be as badly unsettled as was the case before the recent cut. Structural shapes are nominally quoted at 1.30c Pittsburg, but bids have gone in for fabricated steel that mean as low as 1.06c for the steel. This is a total decline from last year's nominal figures of $10.80 per ton, the first cut being $6 ton. Some of the larger steel people are disposed to question the accuracy of the above quotation, but there seems to be little doubt that a good deal of cutting is going on.

PIG IRON.

The pig iron situation shows a moderate amount of improvement, as far as the demand goes, though there has been a further decline in prices. The latter feature has been especially noticeable in the Alabama fields, where prices are fully 50c per ton lower than was noted a week ago. Sales have been made at $11.50 ton f. o. b. Birmingham, and it is said that this price can be shaded. In fact, it is reported that $11 ton has been done on some desirable business. There are a good many inquiries in the market, but while comparatively few of them result in actual business, there are more orders being placed than was the case a fortnight ago. Pennsylvania iron is now quotable at $17.25@17.75 ton, New England delivery, while Virginia iron is very steadily held at $14.75@15 ton, Roanoke.

CHICAGO MARKET.

Lake Superior charcoal	$19.50@20.00
Northern foundry No. 1	17.00@17.50
Northern foundry No. 2	16.50@17.00
Northern foundry No. 3	16.00@16.50
Southern foundry No. 1	15.85@16.35
Southern foundry No. 2	15.35@15.85
Southern foundry No. 3	14.85@15.35
Southern foundry No. 4	14.35@14.85
Southern No. 1, soft	15.85@16.35
Southern No. 2, soft	15.35@15.85
Southern gray forge	13.85@14.35
Southern mottled	13.60@14.10

PITTSBURG MARKET.

Bessemer, valley	$15.00@15.25
Bessemer, Pittsburg	15.90@16.15
No. 2 foundry, Pittsburg	15.40@15.65
Gray forge, Pittsburg	14.40@14.65
Basic, valley	14.50@14.75
Basic, Pittsburg	15.40@15.65

BIRMINGHAM MARKET.

No. 1 foundry	$12.75@13.25
No. 2 foundry	11.00@11.50
No. 1 soft	12.75@13.25
No. 2 soft	12.00@12.50

Matthew Addy & Co., Cincinnati, say in their weekly report:

"There have been some more favorable signs this week. In the first place there has been more buying of iron. The purchasing has not only consisted of the same old small lots that consumers had to have or quit, but there have been some large orders placed by the very heaviest users in the market. They have bought because they have been tempted by the extremely low prices which have been offered. Apparently one or two of the large southern furnace companies have concluded that the only way to start a buying movement was to make prices so low that it was cheaper to buy iron than to go without it; in fact to make prices so low that it would be almost criminal to decline to take advantage of them. Two or three weeks ago when these bargains were first offered consumers seemed to be afraid of them, but consumers now have begun to take them up, so there is a fair prospect of the situation beginning to clear in this manner. Of course there is no question but that the prices which can be obtained now, whether on northern or southern iron, are below the cost of production.

"Another favorable sign is the fact that there has been more liberal purchasing of coke and also a request for faster shipments on coke orders. This undoubtedly means that more iron is being melted. It is a little too early possibly to say this definitely, but coke is one of the very sure indications of a resumption of actual business. When coke shipments fall off iron is not being melted, and when shipments of coke increase it means the melting of iron is increasing.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 5
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$17 00@$17 50
North'n Fdy., No. 2	16 50@ 17 00
North'n Fdy., No. 3	16 00@ 16 50
Southern Fdy., No. 1	16 35@ 16 85
Southern Fdy., No. 2	15 85@ 16 35
Southern Fdy., No. 3	15 35@ 15 85
Southern Fdy., No. 4	14 85@ 15 35
Southern No. 1 Soft	16 35@ 16 85
Southern No. 2 Soft	15 85@ 16 35
Southern Gray Forge	14 85@ 15 35
Southern Mottled	14 60@ 15 50
Lake Sup. Charcoal	19 50@ 20 00
Southern Silveries, 4% Silicon	17 60@ 18 10
Southern Silveries, 5% Silicon	18 10@ 18 60
Southern Silveries, 6% Silicon	18 60@ 19 10
Jackson Co. Silveries, 6 per cent	19 40@ 19 90
Jackson Co. Silveries, 8 per cent	21 40@ 21 90
Jackson Co. Silveries, 10 per cent	21 40@ 21 90
Malleable Bessemer	16 50@ 17 00
Standard Bessemer	17 40@ 17 90
Alabama Basic	16 85@ 17 35

BLACK STEEL SHEETS.

No. 12	per 100 lbs.	$2 20@$2 30
No. 14	per 100 lbs.	2 25@ 2 35
No. 16	per 100 lbs.	2 35@ 2 45
Nos. 18-20	per 100 lbs.	2 60@ 2 65
Nos. 22-24	per 100 lbs.	2 65@ 2 70
No. 26	per 100 lbs.	2 70@ 2 75
No 27	per 100 lbs.	2 75@ 2 80
No 28	per 100 lbs.	2 85@ 2 95

GALVANIZED

No. 10	per 100 lbs.	$3 05@$3 10
Nos. 12-14	per 100 lbs.	3 05@ 3 10
No. 16	per 100 lbs.	3 05@ 3 10
Nos. 18-20	per 100 lbs.	3 15@ 3 25
Nos. 22-24	per 100 lbs.	3 30@ 3 35
No. 26	per 100 lbs.	3 50@ 3 55
No. 27	per 100 lbs.	3 70@ 3 75
No. 28	per 100 lbs.	3 90@ 4 00

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 90
No. 26	per 100 lbs.	5 00
No. 27	per 100 lbs.	5 10
No. 28	per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth,	No. 20	$3 05
" "	No. 22-24	3 10
" "	No. 25-26	3 15
" "	No. 27	3 20
" "	No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, ..."A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Mckey Planished Sheet Steel.....8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb. 18 c
Commercial ½ & ½	per lb. 17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks	case, per cwt.	$7 15
300 lb. Casks	per cwt.	7 15
Sheets	per cwt.	7 15

COPPER.

Copper sheet, 100 lbs. over, base...17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	32 c

LEAD.

American Pig	4.37½@4.40
Bar	4.37½@4.40
National (White) brands (in less than 100 lb lots), per lb	8½c

Sheet.

Full coils	per 100 lbs.	$9 00
Cut coils	per 100 lbs.	9 50

HARDWARE.

ADZES.

Carpenters'.
Plumbs.....40%

Coopers'.
Barton's.....15%
White's.....15%

Railroad
Plumbs.....40%

Ship.
Plumbs.....40%
White's.....15%

AMMUNITION.

Caps, Percussion—per 1,000.

F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c

Shells, Loaded—
Loaded with Black Powder....40%
Loaded with Smokeless Powder, medium grade.....40 & 5%
Loaded with Smokeless Powder, high grade.....40 & 10 & 10%

Union Metallic Cartridge Co.:
New Club, Black Powders.....40%
Nitro Club, Smokeless Powders, ...40 & 5%
Arrow, Smokeless Powders.... .....40 & 10 & 10%

Winchester:
Smokeless Repeater Grade..40 & 5%
Smokeless Leader Grade.40&10&10%
Black Powder.....40%

Gun Wads—per 1,000.
Winchester Gun Wads.....15%

Powder Each.

DuPont's Sporting,	kegs	$5 50
" "	½ kegs	2 90
" "	¼ kegs	1 60
Dupont's Sm'k'less.	50-lb. drum	22 75
" "	25-lb. kegs	11 30
" "	12½-lb. kegs.	5 80
" "	6½-lb. kegs.	2 97
"	1-lb. cans	52

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors.....10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper.....33⅓%

AUGURS.

Boring Machine.....70%
Irwin's.....40&10%
Carpenter's Nut.....70%
Hollow.
Bonney's—list $30.00.....75&5%
Stearns, No. 3.....36 00
Post Hole.
Digwell, 3-inch.....per doz. 12 50
Iwan's Post Hole and Well..40%
Vaughan's, 4 to 9-in., per doz. 6 60

Rafting.
Snell's.....50&5%
Ship.
Ford's, with or wi'out screw.40-10%
Snell's " " " 40-5%

AWLS.

Brad.

No. 3 Handled	per doz.	$0 40
No. 1050 Handled	"	90
Shouldered, assorted, 1 to 4,	per gro.	$1 20
Patent asst'd, 1 to 4	"	85

Harness.

Common	"	95
Patent	"	90

Peg.

Shoulder'd	"	1 50
Patent	"	60

Scratch.

No 1 handled	"	4 80
No. 18, socket handled	per doz.	1 25
No. 7 Stanley		1 80

Sewing.

Common	per gro.	90
Patent	"	90

AXES.

Boy's Handled.
Lippincott, 3 lb. .....per doz. $6 00
Marshall Falls City... " 5 50

Broad.
Plumbs, West, Pat.....33⅓%
" Can. Pat.....35%
" Firemen's (handled) .....per doz $19 00
Plumbs, Miners' (handled) " 9 00

Single Bitted (handled)

Blood's Champion	$10 50
Blood's Dull Finished	9 00
Rough Rider	9 00
American	6 50
Perfect Premier, Forest Clipper	10 00
Duquesne	6 00

Single Bitted (without handles)

Blood's Champion	$7 90
Blood's Dull Finish	8 00
Rough Rider	7 00
Electric Chopper	8 25
Duquesne	5 50
Crown	6 25

Double Bitted (without handles).

Blood's Champion, 3½ to 4½ lbs. per doz	$10 00
Flint Edge " "	9 75
Perfect Premier " "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's.....40%
Pelouze.....20%

BARS. CROW.

Pinch or Wedge Point..per cwt. $3 75

BASKETS.

Clothes.

Small Willow	per doz.	$7 00
Medium "	"	8 75
Large "	"	10 50

Galvanized Iron. ½ bu. 1 bu. 1½ bu.
Per doz..... $4 75 6 50 8 00

BEATERS.

Carpet. per doz.

No. 13 Tinned Spring Wire	$0 90
No. 11 Spring Wire coppered	1 20
No. 10 Preston	1 10

Egg. Per doz.

No. 50 Imp. Dover		$0 75
No. 102 " "	tinned	85
No. 150 " "	hotel	1 50
No. 10 Heavy hotel tinned		2 10
No. 13 " "	"	3 30
No. 15 " "	"	3 60
No. 18 " "	"	4 50

BELLOWS.

Blacksmiths'.....65%

Hand.
8-inch.....per doz. $8 50
10-inch..... " 10 50

Moulders'.
12-inch..... " 13 00

BELLS.

Call.
3-inch Nickeled Rotary Bell, Bronzed base.....per doz. $5 00

Cow.
High Grade.....60%
Kentucky.....65&10%

Door. Per doz.
New Departure Automatic... $6 00
Rotary.
3-in. Old Copper Bell..... 4 00
3-in. Old Copper Bell, fancy.. 6 00
3-in. Nickeled Steel Bell..... 4 50
3½-in. Nickeled Steel Bell..... 5 00

Hand.
Hand Bells, polished.....40&10%
White Metal.....40%
Nickel Plated.....30%
Swiss.....40&33⅓%
Silver Chime.....33⅓%

Miscellaneous.
Church and School, steel alloy..50%
Farm, lbs..... 40 50 75 100
Each.....$1.80 2.25 3.38 4.50

BEVELS, TEE

Stanley's, rosewood handle, new list.....25%
Stanley's iron handle.....25%

BINDING, OILCLOTH.

Zinc.....80%
Brass.....75%
Brass plated.....75&5%

BITS.

Auger.
Extra Double Spur.....70&10%
Ford's Car and Machine....40&10%
Ford's Ship.....40&10%
Irwin.....50%
Russell Jenning's.....25&10%
Clark's Expansive.....60%
Steer's " Small list, $22.00..25%
" " Large " $26.00 .25%
Irwin Car 50%
Ford's Ship Auger pattern Car.....40&10%

Center.....25%

Countersink.

No. 18 Wheeler's	per doz.	$1 50
No. 20 "	"	2 25
American Snail head	"	1 00
" Rose "	"	1 60
" Flat	"	80
Mayhew's Flat	"	1 10
" Snail	"	1 25

Dowell
Russell Jennings.....25&10%

Gimlet.

Standard Double Cut		60%
German Pattern	per doz.	$0 60
German	"	65
Gouge	"	80
Spoon	"	1 00
Countersink	"	1 20

Reamer.

Jenning's Square	"	2 50
Standard Square	"	1 20
German Octagon	"	75

Screw Driver.

No. 7 Common	"	50
No. 1 Triumph	"	1 25

BLACKING, STOVE. (See Polish).

BLADES, SAW

Butchers'.
Standard, ⅞ & 1¼-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50
Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%
Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%
Tackle.
Iron Strapped.....70&10%
Com. Steel.....60%

BOARDS. (New List)

Stove.....50&10%
Wash.
Globe, single.....per doz. $2 50
Globe, double..... " 3 35
Memphis Globe ..... " 2 75
Crystal Glass..... " 4 00
Brass King..... " 3 75
Nickel Plate..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $3 65
No. 00, " ..... " 1 30
No. 0, " ..... " 2 20
No. 3, lead..... " 2 75
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ⅜x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ⅜x6.....60&10%
Machine, ½x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ½x4.....60&5%
Elevator.....50-10&5%
Plow.....60&10%
Stove .....80&10%
Tire.....75%
Wagon Box Strap.....70%
Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%
Barrel.
Cast.....60%
Wrought.....75&10%
Wrought, bronzed.....60%
Flush.
Wrought.....50&10%
Spring.
Wrought .....75&10%
Wrought, heavy.....70&10%
Square.
Cast.....50&10%
Wrought.....75&10%

BORERS.

Angular.
Miller's Falls.....per doz. $13 00
Bung.
Doz.
Enterprise Mfg. Co.'s No 1.....20%
" " " No 2.... 20%

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.00 17.50
Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's ..... 50&10%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 68..... 2 75
" No. 010..... 3 00

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 00
Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....70&10%
Clover Folding 70%

BROILERS.

Wire.....70%
No. Crown, Self-basting, 80doz .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star ..... " 5 00
IXL..... " 6 75
Vell.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....20%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%
Wrought Brass (New List)....40&10%
Wrought Steel, Bright.....80&10%
Wrought Steel, Japanned.
Nos. 731 and - .....70&10&10%

CALIPERS.

Double.....35%
Inside and Outside.....35%
Wing.....30%

CALKS.

Logger's Boot.
(Luflin R. Co.'s), per M..... $3 75
Toe.
Shoenberger..... per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each..... $4.25 $5.00 $6.25
Milk.
Holstein.
Nos..... 300 301 302
Gals..... 5 8 10
Per doz.....$17.50 $22.00 $25.00
Gem Pattern.
Nos..... 400 401 402
Gals..... 5 8 10
Per doz.....$17.50 $21.50 $23.50
Omega Pattern.
Nos. ..... E. 2 E. 3
Gals..... 8 10
Per dozen..... $23.50 $26.50
Jersey Pattern.
Nos..... 80 81
Gals..... 8 10
Per doz..... $23.00 $27.00

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....60%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's.
Nos..... 1 2 3
Per doz.....$5.60 $5.75 $6.25
Nos..... 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $3 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85
Bright Ox Chains.
⅝-in. $7.25; ½-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ⅜ 7/16 ½
Per 100 lbs.$10.80 $9.00 $7.00 $6.20
Inch..... 7/16 ½ ⅝ ¾
Per 100 lbs.$6.00 $5.90 $5.75 $5.65
Inch..... ¾ 1 1¼
Per 100 lbs.....$5.55 $5.55 $5.65
Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.
Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%
Halter Chains.
American, new list.....33⅓%
German.....60%
Niagara, new list 40%
Brown's, " 40%
Picture Chains.
Light Brass, 3 ft.....per doz. $0 75
Heavy Brass, 3 ft .... " 1 50
Pump Chain
Galvanized, per 100 lbs.....$5 50
Safety Chain.
Brass.....60%
Special Steel Loading Chain.
Inch..... ⅜ 7/16 ½
Per 100 lbs.....$16.00 $13.50 $12.50
Stretcher Chains.
7/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.
Tie-Out Chains.
Brown's.....70&5%
Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 33c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.
Wagon Stay Chains.
Inch..... ⅜ 7/16 ½
Per 100 lbs.....$6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School
Crayon..... " 10c

CHARCOAL.

In bags..... per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.
Inches..... 10 12 14
Round per doz....$2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20
Cold.
Good quality, ½ in. and larger.....per lb. .13c
Smaller size per doz.....
Socket, Framing and Firmer.
Clover.....75&10%
Tanged, Firmer.
With handles.....30&5%
Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood,
Gal..... 5 7 10
Each.....$3.90 $4.60 $4.85
Belle, Barrel.....65&7½%
Common Dash, Gal. 4 5 6
Per doz..... $7.75 $8.50 $10.50
Union, Gal..... 5 7 10
Each.....$3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%
Carpenters'.
Steel Bar.....25%
Hose.
Sherman's, brass, ¾-in., per doz.. 42c
Double brass, ¾-in., " 90c
Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $8.10.

CLAWS, TACK.

Cast, wood hdle.....per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 50

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%
Pot.
Wire.....per doz. $0 75
Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5.50 $5.75 $6.25
Royal.....per doz. 2 25
Butchers.
Plumbs.....25%

CLEVISES

Malleable.....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%
Damper.
Standard.....per doz. 65c
Troy..... " 38c
Hame..... " 17

CLOTH

Emery.
Star.....50%
B. & A.....50%
Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll... 2 75
4 and 5..... " .. 3 00
6..... " .. 3 25
7 and 8..... " .. 3 75
Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs...60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60, 10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets .....75&5%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass" 3.00 5.50 4.25

COMBS, CURRY.

Nos... 000 11 15 39 89 108
Per
Doz..$.37 .60 1.90 .90 1.15 .80
Nos... 299 320 390 522 620 1400
Per
Doz.$1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters'.....60%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 30c
1½ lb.....31c 2 lb... " 29c
3 lb and larger..... " 28c

CORD.

Picture
White Wire (new list) .....85&10%
Sash.
Monarch Braided Flax...per lb
Silver Lake, white, 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 25c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&30%

COUPLINGS, HOSE.

Brass.....per doz. $1 00
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3¼

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%

Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%

Pipe.
Stanwoods, No.... 1 2 3
Each.....$0.85 $1.50 $4.[illegible]

Slaw and Crout.
3-knife Crout.....per doz. $9 [illegible]
1-knife Slaw..... " 1 [illegible]
2-knife Slaw..... " 2 [illegible]

Washer..... " 7 [illegible]

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American..... 50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.

Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 10

Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25

Reciprocating.
Goodell's.....per doz. 16 50

Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65

Corrugated Conductor.
Discount.....75&10%

Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40

Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.35 $0.95
Planished, " .. 1.40 1.70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs. ½ kegs, kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine 60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
Jack Frost.
Qts..... 2 3 4 6 8 10
Price .$1.60 1.90 2.20 2.80 3.80 4.65

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per dos. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 [illegible]
A White..... " 15 [illegible]
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 75
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 6 8 10
Per doz.....$7.25 9.75 12.00
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 90
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs .....80&5%
5 lbs. and over.....80&10%
Masons'.
Single and Double Face.....80&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 50
Pratt's Adjustable, Nos. 1 & 2, per doz..... 4 50
Ives' Adjustable.....per set, 1 35
Axe.....40%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....40%
Drifting Pick.....40%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
U. S. Rolled Bearing.....60&10%
Matchless.....50&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse Big Twin.....25%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 60
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crescent.....50&10%
Cast Claw.....per doz. $1 10@1 35
Cast Shingling.... " 1 25
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 05
Gate.
Clark's..... 1 2 3
Hgs & Ltch. . doz. $2.50 3.25 4.25
Hinges only... " 2.00 2.50
Latches only . " .90 .90
Knucks.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
Banner.....50%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....40%
New Idea.....per gro. $8 00
Oxford.....20%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....60, 10&10%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $4 50
14 to 20 in..... " " 4 25
22 to 36 in..... " " 4 00
Screw Hook and Eye.
⅛ in.....per 100 lbs. $6 75
⅙ in..... " " 7 75
¼ in..... " " 9 75

HOES

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per dos. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....60%
Iron.....70%
Awning.....per gro. 80&10%
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 5 7 10 12
Per doz.....$1.90 2.10 2.25 2.65
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch..... ¼&5/16 ⅜ 7/16 ½
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, rivetted, painted red.....per doz. $2 25
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Gypsy..... " 2 50
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring .....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

	Coupled, per ft.
Velvet, 3 ply-¾" guar. press.....	7½c
Eclipse, " " "	8½c
Diamond " " "	10c
Jeanette " " "	13c
Pennsylv'a " " "	16c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.	400 lbs. 11½
Special " " "	300 " 9½c
Leader " " "	100 " 7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 50 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
C.....per doz. $0 40
B..... " 50
A..... " 58
Princess..... " 70
Thelma..... " 1 25
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 3 75
No. 70 Asbestos.....$1 20 net
No. 100 " ..... 1 30 net
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's
No. 50 J. Enterprise, per set 93
No. 55 J. " " 90
No. 50 T. " " 1 00
No. 55 T. " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest .. 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Miller 50%
Oliver,
Nos..... 0 00
Each.....$0.00 $0.80

Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters'.....10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated. " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Poin'.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander'r..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 50

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2¾-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate. 43c

MACHINES.

Boring.	Without Augers	With Augers
Angular.....per doz.	3 00	4 40
Upright..... "	2 60	4 00
Leather Riveting.		
Chicago, Pomeroy....per doz.		$9 00
Excelsior..... "		2 00
Handy..... "		2 00
Little Giant..... "		3 00
Pony, Pomeroy..... "		7 20
Washing.		
Winner.....per doz.		54 00
Keystone..... "		54 00
U. S. Steel..... "		60 00
Advance, f.o.b.Chicago "		24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 3 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS.

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....40&5%
Second Quality.....50&5%

MILLS, COFFEE.

Enterprise.....25%
Parker.....60&5%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1½ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 28
Carload Lots..... 2 18
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf ..... per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen.....$4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ½ 9/16 ⅝ ¾ ⅞ 1
lb 9½c 8c 6½c 5½c 5½c 5c 4½c
Square Tapped.
In. ½ 9/16 ⅝ 7/16 ¾ ⅞ 1
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn .. 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll. 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fibre.....per lb. $0 00
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches.....	6	8	10	12
Per doz.....	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 50
Hoyt's..... " " 30
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%	50&10&2½%
Pittsburgh	75&10&5%	60%
Central	75&10%	60%
Northwestern	75&7½%	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern	70%	50&12½%
Southwestern	70%	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils.....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches....	5	6	7
Smooth, per jt...	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished	14½c	15½c	18 c
Planished	28 c	31 c	35½c
Made-up—Inches..	5	6	7
Smooth	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7" to 6"
	—Cents—			
Battle Axe Blue...	7	7½	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex " ..	10	11	13	14
Yale, Rus. Fin....	15	16	17	18
Duplex Planished.	29	31	37	38
Galvano, Gal.....	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@¼-in., black.....discount, 60%
⅜@½-in., black..... " 60,10&5%
¾-in. to 6-in, black... " 70%
7-in. to 12-in., black... " 62½%
⅛@¼-in., galvanized.... " 42%
⅜@½-in., galvanized.... " 50%
¾-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench.....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Giant, Button's—80% off list.
Cutting
Bernard's.....30%
Lodi.....50%
Upper End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....60%
Fencing.
Black Bull.....per doz. $8 25
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%

Gas.—Inches..	7	8	10	12
Per doz.....	$3.00	3.50	4.50	5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common.....60&10&10%
Cook's.....40%
Davis' Iron.....25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro..... 5 00
Stove.
Black Eagle, 1-lb. cans, pr. gr. $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Black Jack, ½-lb. cans. " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
4-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's, each, $4 75@6 25
Gate City.....each, 6 25
Gem.....each, $6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 50%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 16
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.....	1	2	3	4
Each.....	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 2
Machine.....per lb 19
Saddlers'.
Common.....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 3

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 5 25

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

(All Sizes)

Japanned, Bronzed and Plated...70%
White Porcelain Enameled...50&10%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70&10%

REGISTER FACES

Japanned, Bronzed and Plated
4x6 to 14x14.....70%
14x14 to 38x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.

Copper.....	2½ in.	3in.
Per doz.....	$1 10	$1 40
Rea's Improved Self-Piercing copper, pr doz	2 00	....
Steel, per doz.....	85	95
Nickel plated.....	1 35	....

and Ringers—Hog.
Blair's Rings.....per doz. $0 55
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 22
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality.....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb. 15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's .....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprise, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 25%
Disston's 25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . . per doz , 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in.....	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial.

Nos ..	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 38
Square, common..... " 42
Octagon, common..... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz..... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $5 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOT—See Ammunition.

SHOVELS AND SPADES

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.25; heavy, $2 50
Star.
Per doz .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $3.50 per dcz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb ...9½@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan.....per lb .6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $5 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Glued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker .... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood. Ex.
Nos..... 3 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones.....25c
4 " " " " " 25c
India Hemp, ½-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-ply "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel..... 20%
Parker's Victor..... 20%
Parker's Swivel Base..... 20%
Parker's Re-inforced 20%
Parker's X Series..... 20%
Parker's Combination 20%

No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
No. 100, Rival..... " 28 50
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots.
Tinned.....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron ...per lb. 2½c
Wrought iron in bulk, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½ 1¾
9c 6½c 5c 4½c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½ 1¾
10 7c 6c 5½c 5c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10¾
Saw..... " 8¾

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads .. per 100 lbs. $2.33 $2.63
Less than car " 2.43 2.73
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....60%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils .... 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....85cnet
Always Ready..... 50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%
Bemis & Call's:
Adjustable S, 40&5%; Adjustable S Pipe, 40&5%; Briggs Pattern, 40%; Combination Bright, 50%
Steel Handle Nut.....50&5%
Combination Black.....50&5%
Merrick Pattern.....50&5%
Double End Adj. S.....40&5%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50

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American Steel & Wire Co., Chicago, Ill

Ice Cream Freezers
New England Enameling Co., New York, N. Y
North Bros. Mfg. Co., Philadelphia, Pa
Reid-Edelmuth Mfg. Co., Brooklyn, N. Y
Simmons Hdw. Co., St. Louis, Mo
Sturges & Burn Mfg. Co., Chicago, Ill

Iron Enamel
Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils
Atlantic Stamping Co., Rochester, N.Y
Avery Stamping Co. Cleveland, O
Lalance & Grosjean Mfg. Co., Chicago, Ill
New England Enameling Co., New York, N. Y
Standard Stamping Co., St. Louis, Mo
Star Enameling and Stamping Co., Pittsburgh, Pa

Ladders—Shelf
Milbradt Mfg. Co., St. Louis, Mo

Lard Presses
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Lawn Mowers
Clipper Lawn Mower Co., Dixon, Ill
Philadelphia Lawn Mower Co., Philadelphia, Pa

Lighting Systems
Detroit Heating & Lighting Co., Detroit, Mich
Whitacre Mfg. Co., J. E., Rockford, Ill

Lightning Rod
Dallas & Son, Inc., A. C. Chicago, Ill
Electra Lightning Rod Co. Cresco, Ia
Foy, Edw. A. & Co., Cincinnati, O
Maher & Son Lightning Rod Co., Preston, Ia

Metal—Perforated
Harrington & King Perforating Co., Chicago, Ill

Metal Polish
Nickle Plate Stove Polish Co., Chicago, Ill

Metal Shingles
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Cortright Metal Roofing Co., Philadelphia and Chicago
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Mica
Munsell & Co., Eugene Chicago, Ill

Milk Cans
Sturges & Burn Mfg. Co., Chicago, Ill

Milk Pails
Elliott Mfg. Co., Warren, Ill
Standard Stamping Co., St. Louis, Mo

Miters
Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper
Hussey & Co., C. G., Pittsburg, Pa
Keystone Nail Co., Pittsburg, Pa

Nuts
Columbus Bolt Works, Columbus, O

Paints and Paint Specialties
Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N.J

Pencils
Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Pipe Fitters
Blumer-Descher Mfg. Co., Brooklyn, N.Y

Pipe—Furnace
Michigan Safety Furnace Pipe Co., The Detroit, Mich

Plungers
Berger Bros. Co., Philadelphia, Pa

Post Hole Diggers
Iwan Mfg. Co., South Bend, Ind

Pumps
Star Bucket Pump Co., St. Louis, Mo

Punches
Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N.Y
Robinson. Mfg. Co., J. M., Cincinnati, O
Weiss & Co., H. New York, N. Y

Putty—Stove
Connors Wm., Paint Mfg. Co., Troy, N.Y

Radiators
Advance Radiator Co., Syracuse, Ind

Rasps
Disston, Henry & Sons., Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Rat Traps
Bromwell Brush & Wire Goods Co., Cincinnati, O

Razors
Droescher, S. R., New York, N. Y
Smith & Hemenway Co., New York, N.Y

Registers
Henry & Scheible Co., Cleveland, O
Schwab & Sons Co., Milwaukee, Wis
Symonds Register Co., St. Louis, Mo

Rivets
Columbus Bolt Works, Columbus, O

Roasters
Wheeling Corrugating Co., Wheeling, W. Va

Roofers' Supplies
Auld & Conger Co., Cleveland, O

Roofing—Iron and Steel
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Burton, W. J. Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roof. Co., Jersey City, N. J
Schoedinger, F. O., Columbus, O
Tanner & Co. Indianapolis, Ind
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement
Auld & Conger Co., Cleveland, O
Connors Paint Co., The Wm., Troy, N.Y

Roof Paint
Dixon, Jos. Crucible Co., Jersey City, N.J

Rules
Lufkin Rule Co., Saginaw, Mich

Sash Balances
Pullman Mfg. Co., Rochester, N.Y

Sash Chains
Oneida Community, Ltd., Oneida, N. Y

Sausage Stuffers
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Saw Sets and Saws
Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N.Y

Scales
Osgood Scale Co., Binghamton, N. Y
Pelouze Scale Co., Chicago, Ill

Schools—For Sheet Metal Pattern Drafting
Gray's School, New York, N. Y

Screens—Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks
Pullman Mfg. Co., Rochester, N. Y

Screws
Columbus Bolt Works, Columbus, O

Screw Drivers
North Bros. Mfg. Co., Philadelphia, Pa

Shears
Bertsch & Co., Cambridge City, Ind
Bicknell Mfg. & Supply Co., Janesville, Wis
Robinson, Mfg Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia

Sheets—Black and Galvanized
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Tanner & Co., Indianapolis, Ind
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished
American Sheet & Tin Plate Co., Pittsburgh, Pa
Follansbee Bros., Pittsburg, Pa
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Tanner & Co., Indianapolis, Ind
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel
American Sheet & Tin Plate Co., Pittsburgh, Pa
American Steel & Wire Co., Chicago, Ill
Follansbee Bros. Co., Pittsburgh, Pa
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Tanner & Co., Indianapolis, Ind

Sheet Metal Ornaments
Berger Mfg. Co., Canton, O
Foster & Sons Co., Wm. Springfield, Ill
Friedley-Voshardt Co., Chicago, Ill
Gerock Bros. Mfg. Co., St. Louis, Mo
Keighley Metal Ceiling Co., Pittsburg, Pa
La Crosse Steel Roofing and Corrugating Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Mullins Co., The W. H. Salem, O
Schoedinger, F. O., Columbus, O

Shelf Boxes
Green & Co., A. H., New York, N. Y
Heller & Co., W. B. Montpelier, O

Shelving
Heller & Co., W. B. Montpelier, O
Warren Mfg. Co., J. D., Chicago, Ill

Shovels
Avery Stamping Co., Cleveland, O

Siding
Milwaukee Corrugating Co., Milwaukee, Wis

Sifters
Stuber & Kuck, Peoria, Il

Skylights
Berger Mfg. Co., Canton, O
Burt Mfg. Co., Akron, O
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis
Mullins Co., W. H. The Salem, O
Powers & Williams, Streator, Ill

Skylight Gearing
Weiss, H. & Co., New York, N.Y

Slate Roofing
Auld & Conger Co., Cleveland, O

Slating Nails
Hussey & Co., C. G., Pittsburg, Pa

Soldering Fluxes
Ruby Chemical Co., Johnston, Ohio

Squares, Machinists'
Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal
Avery Stamping Co., Cleveland, O

Statuary
Gerock Bros. Mfg. Co., St. Louis, Mo
Mullins Co., The W. H. Salem, O

Steel
American Steel & Wire Co., Chicago, Ill

Store Fixtures
Heller & Co., W. B. Montpelier, O

Stoves and Ranges
Albany Foundry Co., Albany, N. Y
Clark & Co., Geo. M. Chicago, Ill
Foster Stove Co., The. Ironton O
Monitor Stove & Range Co., Cincinnati, O
Mt. Penn Stove Works, Reading, Pa
Odin Stove Mfg. Co., Erie, Pa
Quality Stove & Range Co., Belleville, Ill
Ringen Stove Co., St. Louis, Mo
Sheridan Stove Co., Quincy, Ill
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Willard, Wm. G. St. Louis, Mo

Stove Mats
Stuber & Kuck, Peoria, Ill

Stove Patterns
Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy Ill
Vedder Pattern Works, Troy, N Y
Weller Pattern Co. Quincy, Ill

Stove Pipe
Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles
Stuber & Kuck, Peoria, Ill

Stove Polish
Nickel Plate Stove Polish Co., Chicago, Ill

Stove Putty
Connors Paint Mfg. Co., Wm., St. Louis, Mo
Dixon, Jos. Crucible Co., Jersey City, N. J

Stove Repairs
Brauer, A. G., Supply Co., St. Louis, Mo

Stove Trimmings
Advance Radiator Co., Syracuse, Ind

Sugar Kettles
Sperry, D. R. Co. Batavia, Ill

Supplies—Foundry
Obermayer Co., S., Cincinnati, O

Supplies—Stove Dealers'
Brauer, A. G., Supply Co., St. Louis, Mo

Tapes
Lufkin Rule Co., Saginaw, Mich

Technologist
Hooper, C. H. Dubuque, Iowa

Thermometers—Oven
Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated
Harrington & King Perforating Co., Chicago, Ill

Tinners' Furnaces
Bernz, Otto Newark, N. J
Clayton & Lambert Mfg. Co., Detroit, Mich
Meyer Fdy. & Mfg. Co., South Bend, Ind

Tinners' Tools
Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Bertsch & Co., Cambridge, Mass
Blumer-Descher Mfg. Co., Brooklyn, N.Y
Dries & Krump Mfg. Co., Chicago, Ill
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia
Weiss & Co., H., New York, N.Y

Tinplate
American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware
New England Enameling Co., New York, N. Y

Tinware Trimmings
Berger Bros. Co., Philadelphia.
Butler Bros., Chicago, Ill

Tools, Etc.
Bemis & Call Hardware & Tool Co., Springfield, Mass
North Bros. Mfg. Co., Philadelphia, Pa
Simmons Hardware Co., St. Louis Mo
Stanley Rule & Level Co., New Britain, Conn

Tools—See Carpenters' Tools

Tools—Linemen's
Smith & Hemenway, New York, N.Y

Trowels
Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubs—Wash
Atlantic Stamping Co., Rochester, N. Y
Standard Stamping Co., St. Louis, Mo

Tubing—Heavy Tin
Dieckmann, Ferdinand, Cincinnati, O

Ventilators
Berger Mfg. Co., Canton, Ohio
Burt Mfg. Co., Akron, Ohio
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedly & Voshardt. Chicago, Ill
Globe Ventilator Co., Troy, N. Y
Iwan Mfg. Co., South Bend, Ind
Merchant & Evans Co., Philadelphia, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
Powers & Williams, Streator, Ill
Pullman Mfg. Co., Rochester, N. Y

Wagons
Sycamore Wagon Wks., Sycamore, Ill

Washers
Columbus Bolt Works., Columbus, O

Washing Machines
Knoll, Jas. H. Reading, Pa
Rotary Washing Machine Co., St. Louis, Mo
White Lily Mfg. Co., Davenport, Ia

Wire
American Steel & Wire Co., Chicago, Ill
National Wire Cloth Co., Niles, Mich

Wire Goods
Bromwell Brush & Wire Goods Co., Cincinnati, O
Dunning Wire & Fence Co., Cedar Rapids, Ia
National Wire Cloth Co., Niles, Mich
Pittsburgh Steel Co., Pittsburgh, Pa

Wrenches
Bemis & Call Hardware & Tool Co., Springfield, Mass

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, business for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS OFFICIAL copy "PATENT LAWS" United States sent on receipt ten cents stamps.
HUBERT E. PECK, Patent Attorney, 629 F Street, Washington, D. C.

For Sale—Stock of hardware, stoves, tin shop and tools, mixed paints, barb wire, woven wire fence, pumps, and pipe fittings. The only stock of the kind in town. Good opening for party wishing to go in business. Stock about $2,500 and may be increased profitably or can add either harness, furniture or farm implements as there is a chance to do good business. Building rent cheap, near depot, in the dairy and farming section of Illinois where crops never fail. Trade mostly cash. Address P-62, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

For Sale—New stock of hardware, stoves, tinware and tinners tools in a live town in northern Illinois. Population about 20,000. Stock will invoice about $1,800. Will consider a cash deal only. Address P-60, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

For Sale—1 Westphall Screw Case, holds 118 gross screws, price $15; 1 Westphall Bolt Case, has 113 compartments, this includes 7-16 bolts price $25. These cases are all iron with glass fronts for screw case and are in good shape. Address Hager Bros. Co., Ft. Atkinson, Wisconsin. 14-3t

For Sale—A complete tinshop, including tools and stock in a town of 800. Cheap. No tinner within 15 miles either direction. Good reason for selling. Address "Tinner," Dorchester, Wisconsin. 14-3t

For Sale—One Belding gun shell loading machine with attachment for 10 ga., 12 ga. and 16 ga. shells; one 10 ga. Diamond Bench closer; one 12 ga. Diamond Bench closer; one 16 ga. Common Bench closer; one Dietz searchlight 1½-inch wick, 16-inch reflector. All these articles are in good condition. Address Grebe Hardware and Harness Mfg. Co., Barrington, Illinois. 14-3t

For Sale—A quantity of paint in good condition, but out of date. Will sell very cheap. Good for priming on old buildings. Address P. O. Box 1, Rockefeller, Illinois. 13-3t

For Sale—Tin and pump shop doing good business; also five-room residence, in good town. Address Ward H. Parker, Fairview, Kansas. 13-3t

For Sale—Tin shop and plumbing doing good business in Indiana town of 2,000 population. Only shop in town. Address Colwell Bros., Syracuse, Indiana. 13-3t

TINNER'S TOOLS.

For Sale—1 eight-foot Robinson cornice brake; 1 eight-foot Ohl power shear cut 16 gauge; 1 five-horse D. C. 1,150 R. P. M. Fairbanks Morse & Co. motor; all in first-class condition. Address K. A. Wetzler, 542 S. Jackson St., Janesville, Wisconsin. 14-3t

For Sale—1 only No. 4 Tinner's Bench Shears, net cash price of $2; 1 ""B No. 2 Moors Double Seamer, net cash price of $9.50, being 50% off the list. Guaranteed in good working order and not much worn. Are a bargain. Address M. A. Benson, Saranac, Michigan. 13-3t

For Sale—One P. S. & W. setting down machine, $3.50; one P. S. & W. Olmstead's double seaming machine with setting down attachment and five heads, $12; one P. S. & W. encased wiring machine, $6.50; one P. S. & W. encased large turning machine, $6.50; all as good as new. Will sell separately. Address P-54, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. & 12-3t

Wanted—Second-hand cornice brake in good condition. Eight foot preferred. Address L. J. Beuret, Auburn, Indiana. 13-3t

HELP WANTED.

Tinner Wanted—Young man as tinner and to clerk part of time, in town of 1,000. State experience and wages in first letter. Address H. F. Dallman, Clinton, Wisconsin. 14-3t

Wanted Good Tinner—Who understands ceiling, furnace and general job work. Not under 45 years of age and capable of doing all kinds of shop work. Ten hours per day. None but good workman need apply. State wages. Address P-64, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Wanted—Good cornice and skylight man at once. Address P-66, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Tinner Wanted—All around tinner and furnace man, by April 1, one who is competent to clerk in store. State age, experience, reference and wages expected in first letter. Address The Farmers' Hardware Co., Salem, South Dakota. 14-3t

Wanted—General hardware traveling salesman. State salary and experience. Give references. Address P-68, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Tinner Wanted—First-class tinner and furnace man wanted. Permanent position for A-1 man. Must be married and strictly sober. Town 10,000 Northern Illinois. No one without best recommendations need apply for this position. Address P-61, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Wanted, Tinner—Good man for tinning and plumbing shop. To such can give steady job. Address Box 349, Watseka, Illinois. 14-3t

Wanted, Tinner—Must be an all around man, sober and a hustler. References required. Good steady job for the right man. Address Charles E. Prentice, 15 First South St., Champaign, Illinois. 14-3t

Wanted—First-class tinner for in and outside work. Must be reliable. Address P-57, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13-3t

Wanted, Good Tinner—One that can do all kinds of tin work in shop, spouting, furnace work, etc. Must be sober and reliable. Good town. Steady work. References required. Address Edson Smith & Sons, Elmwood, Illinois. 13-3t

Wanted—Young man or boy who has had one or two years' experience at the tinner's trade. To such I can offer a steady position. Others need not answer. Address P. O. Box 71, Chamois, Missouri. 13-3t

Wanted—All around tinner having some knowledge of plumbing, hot air and hot water heating. To steady, competent man will give permanent position at good wages. State age, wages wanted, and give references. Address E. C. Dedrick, Langdon, North Dakota. 13-3t

Wanted—Young man at once to work at tinning, plumbing, etc. Address Lock Box 66, Poynette, Wisconsin. 13-3t

Wanted—Tinner and general man with three to five years' experience at trade in city of 3,000. Steady job at moderate wages to right man. Address George W. Buelow, Waupun, Wisconsin. 13-3t

Wanted Tinner and furnace man with some knowledge of plumbing and competent to clerk in store. Steady job; state wages. Address The Marquis Mercantile Co., Atlantic, Iowa. 13-3t

Wanted—Good all around tinner, one who is good first-class furnaceman, in town of about 1,200. Give age, experience and wages wanted. Address P-58, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13-3t

Wanted — All around tinner having some knowledge of plumbing, also to be competent to clerk in the store when not otherwise employed. Married man preferred. No boozer. Will demand good references. To competent man will give steady work with good wages. Address H. J. Yorty, Paw Paw, Illinois. 12-3t

Wanted, Tinner—Young man who has had a few years' experience in shop and can do spouting and decking. Need not be an expert. Must not smoke cigarettes, or booze. Write, stating wages expected and references. Steady job. Address E. L. Meisch, Alexandria, South Dakota. 12-3t

Wanted, At Once—First-class sheet metal worker. State experience in the different branches and full particulars. Address H. H. Bain, Shreveport, Louisiana. 12-3t

SITUATIONS WANTED.

Situation Wanted—By young man with six years' experience in tinning, plumbing and heating. Iowa preferred. Am strictly sober. Address Standish Creamery, Standish, Michigan. 14-1t

Wanted Position—By April 11, by good tinsmith and pipe fitter. Am good all-around mechanic, am at present clerking and doing tin work in hardware store. Will go anywhere. A-1 references. Address C. J. Clarkson, Philo, Illinois. 14-3t

Situation Wanted—As hardware clerk by strictly temperate young man aged 23. Six years' experience. Can furnish best references. Ambitious, hard worker, with ability to sell goods and make friends. Address P-65, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Situation Wanted—By plumber, experienced in plumbing, gas fitting, steam and hot water heating. Address G. H. F., 330 Lynn Ave., Baraboo, Wisconsin. 14-3t

Situation Wanted—As clerk in hardware store. Can also do roofing, spouting and repairing. Married man, no boozer, want steady job. Prefer Oklahoma or Kansas. Address D. W. Housley, Fairview, Oklahoma. 14-3t

Situation Wanted—By hardware man with nine years' experience. Speaks German and English, age 24 years. Can trim windows. No bad habits. Can give good references. Address P-67, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Situation Wanted—By young man with nine years' experience in the sheet metal and cornice business. Can do drafting and pattern cutting. State wages and full particulars in first letter. Address P-59, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Situation Wanted—Heating engineer or manager familiar with range department. Experienced in plumbing, modern hot water and warm air heating systems, with knowledge of manufacturing and selling. Ability to produce results. Seeks connection with reliable firm in large city. Would consider financial investment. Address P-63, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-3t

Situation Wanted — By an American tinner, plumber and furnace man. Can also do hot water heating. Have had six years' experience on inside and outside work. Age 25. References furnished. Address P-56, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13-3t

Situation Wanted — Married man, 37 years old, 14 years' experience in sanitary plumbing, steam, hot water and hot air heating. Last five years in hardware store and tinshop. Capable of estimating, laying out work and taking entire charge of job. No bad habits. Desires position as workman, foreman or manager. State wages. Address P-55, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13-3t

Situation Wanted—In wholesale or retail hardware house by young man 23 years old with fair education and 6 years' experience in retail hardware store. Best of references. Address Lock Box 36, Lykens, Pennsylvania. 13-3t

Situation Wanted—As tinner, by young man, 21 years old. Strictly sober. Four years' experience under first-class tinner and sheet metal worker. Can do all kinds of job work, tin roofs and furnace work. Willing to hustle and give good service. Speaks German and English. Address Ewald Dingler, 605 North Payne St., New Ulm, Minnesota. 12-3t

Situation Wanted—As tinner and hardware clerk. Have worked in shop and store for 20 years. Am 37 years old and German. No boozer. Address August Young, Elmore, Minnesota. 12-3t

SPECIAL NOTICES.

Wanted at Once

Two first-class specialty salesmen to sell tinware and galvanized ware in best territory. Goods and territory well established. None but first-class men wanted. These are chance openings and will pay live wires to investigate. Address Specialty, care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 12-3t.

A FINE LETTER TO BURT

The Yale & Towne Mfg. Co., Stamford Conn., one of the largest and best known manufacturers of locks and hardware in the world, write under date of February 18, 1908.

"We have to advise that the Burt Ventilators placed on a recent addition to our buildings, have given excellent satisfaction.

Very truly yours,
YALE & TOWNE MFG. CO.,
(Signed) H. J. Lamborn, Superintendent.

BURT COMBINATION SKYLIGHT VENTILATORS

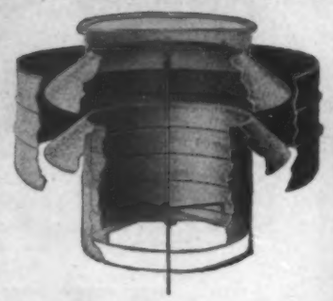
may be found on a large majority of the most important constructions in the country. Their design is in accord with the latest ideas of the most progressive ventilating and mechanical engineers. Their construction is as thorough and honest as a modern factory and skilled mechanics can make them.

Send for our new 96-page catalogue giving fine illustrations of Mills, Shops, Factories and Residences where Burt Ventilators are in successful use.

THE BURT MFG. CO., - - 650 Main St., Akron, Ohio

Largest Manufacturers of Oil Filters and Exhaust Heads in the World.

GEO. W. REED & CO., Montreal, Sole Manufacturers of "Burt" Ventilators for Canada



Glass Top Burt Ventilators are also made up to and including the 72-inch size.
Notice Sliding Sleeve Damper. (Patented)

SPECIAL NOTICES.

A GOOD CHANCE

For a first-class plumber, steam and hot water fitter to go in business for himself. An honest, first-class workman can do well here. Best references. This is not a fake. For particulars, address B-100, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13

STOVE SALESMEN WANTED

For a complete modern line of Gas, Coal and Wood Stoves. Territory—One for Western New York and Pennsylvania, also one for Indiana and Eastern Illinois. Address B-63, care THE AMERICAN ARTISAN. 355 Dearborn street. Chicago, Illinois. 4-ufn.

SALESMEN

WANTED—To sell the best Combination Can Opener, Knife and Shear Sharpener on the market. Sells on sight. Can be carried as side line. Sample mailed for 25 cents Terms to dealers. Address Atlas Stamping and Plating Works, 88 West Jackson Boulevard, Chicago, Illinois. 1-13t

SALESMEN

covering the hardware and sheet metal trade can earn liberal commission by soliciting subscriptions to THE AMERICAN ARTISAN as a side line. Write for agents' terms. THE AMERICAN ARTISAN, 355 Dearborn St., Chicago.

WANTED TO BUY

PRESS TO BALE SCRAP TIN. New or Second Hand. Address Standard Stamping Comp'ny, St. Louis, Missouri.

13-3t.

For Sale

A new stock of Hardware, Tinware and Tinners' tools in a live town in Northern Illinois. Population about 20,000. Stock will invoice about $1600. Cash deal only considered. Will discount for cash. Address W-2, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 14-3t

WANTED

Mounting shop foreman in stove foundry near Chicago. Must be A1 and up-to-date. Address with experience, references and salary expected, W-1, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 14-

FOR SALE

One of the best Implement, Hardware and Seed stores in Indiana. Annual sales $125,000.00. Reason for selling poor health. Address Indiana, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 14-4t

For Sale

A clean and up-to-date stock, consisting of hardware, stoves, ranges, harness, paints and oils and tin shop in connection. Stock will invoice about $4,000.00, yearly sales $15,000.00. This is a rare opportunity for someone wishing to enter hardware business to take up an established business with little competition in town of 500, surrounded by the best farming land in Central Illinois. We also wish to sell our store buildings. For additional information address W-3, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 14-ufn.

WHY NOT A BUSINESS OF YOUR OWN?

I can tell you of a retail line in which the profits and chances of success are exceptionally large. And I know of a few splendid locations for such stores. Write me to-day for full particulars. EDWARD B. MOON, 13 West Randolph Street, Chicago.

Stove Patterns for Sale

Complete patterns for Oak-Air-tight and Smoke Consumers — also stove pipe radiators. Full line of sizes. Will sell cheap. Champion Steel Range Company, Cleveland, Ohio.

WANTED

By St. Louis Manufacturer salesman for Arizona and New Mexico, including El Paso and surrounding territory. To sell full line of **Tinware, Galvanized Ware and Sheet Metal House Furnishing goods.** One who is now traveling in territory selling kindred line preferred. Address B-99, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 13-1t.

Subscription Solicitors Wanted

WANTED—Agents to solicit subscriptions to the THE AMERICAN ARTISAN in every state in the Union. Can be handled as a side line by agents who sell stoves and sheet metal wares. Write for agent's terms and state what territory you can cover.

SUBSCRIBERS who can spare a few hours a week can make money on the side by soliciting subscriptions in their vicinity or among their fellow workers. Write for particulars.

SAMPLE COPIES FREE UPON REQUEST

THE AMERICAN ARTISAN
355 Dearborn St., Chicago

DIXON'S PIPE-JOINT COMPOUND

for all screw and flange connections. Makes thoroughly tight joints, but allows the joints to be unmade at any time without damage to tools or fittings. Write for free sample.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

You Can't Get Along Without It

If you prepare your own advertisements, if you want them to produce results worth while, if you want the money you spend for space in your local papers to be a good investment, you must secure a copy of

THE AMERICAN ARTISAN ADVERTISING MANUAL

Don't take our word alone for its being a practical, valuable book for retailers, but read the opinions expressed by those who have reviewed its contents and who are competent to judge of its merits.

From "NATIONAL HARNESS REVIEW," Chicago.

"Its pages teem with salient points concerning texts, typographical displays and other essentials which go into the make-up of a business getting announcement."

From "PRESTO," Chicago.

"It would be impossible to estimate the value of the book to hardware merchants."

From "TRADE," Detroit, Mich.

"This book is thoroughly practical."

From "THE BUFFALO EXPRESS," Buffalo, N. Y.

"It contains many reproductons of successful advertisements."

From "THE WEEKLY IMPLEMENT TRADE JOURNAL," Kansas City, Mo.

"It is a reproduction of the retailers advertisements and criticisms of same."

From "FARM IMPLEMENT NEWS," Chicago.

"It is a compilation of all kinds of display advertisements as they actually appeared in different newspapers."

From "THE HOUSE FURNISHING REVIEW," New York.

"This book is useful to the ad man."

From "THE THRESHERMEN'S REVIEW," St. Joseph, Mich.

"A very effective monitor of retail advertising." "It should be a very valuable book for the dealer who wants newest ideas and best methods of expression in ad writing."

From "HARDWARE," New York.

"The book is a practical help for hardware dealers."

From "STOVES AND HARDWARE REPORTER," St. Louis, Mo.

"A fund of information on the subject of advertising calculated to enable the retail dealers to obtain the best results from newspaper advertising."

From "THE METAL WORKER," New York.

"The Advertising Manual will be found of assistance to stove dealers, sheet metal workers, plumbers, hardware men and all who seek to extend their business by advertising."

From "THE TRADESMEN," Chattanooga, Tenn.

"If the average hardware or stove dealer, to whom this book should prove of especial benefit, had some assistance in the preparation of his advertising copy, he would be able to prepare advertisements at all times that would be of the business getting kind."

Improve your advertising, Mr. Dealer. THE AMERICAN ARTISAN ADVERTISING MANUAL will aid you. Secure a copy to-day.

The book retails at $3.50, and it can be obtained from your bookseller or from

DANIEL STERN

PUBLISHER

355 Dearborn Street, Chicago

THE HARRINGTON AND KING PERFORATING CO.

PERFORATED METALS
OF EVERY DESCRIPTION AND FOR ALL PURPOSES
FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.
New York Office, 114 Liberty Street.

THE RIGHT KIND
of Oven Thermometer is

THE "ACME"

THE "ACME"

MADE BY EVANS STAMPING AND PLATING COMPANY TAUNTON, MASS.
Western Agent, C. H. MATTHEWS, Detroit, Mich.

Stove Repairs
AND STOVE DEALERS' SUPPLIES
From "BRAUER'S"
Prices are Lowest Treatment is best
Shipments are Promptest
A. G. Brauer Supply Co.
316-318 N. THIRD ST. ST. LOUIS, MO.

Sperry's Steam Kettles

Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but *they are safe and tight.*

D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS BATAVIA, ILL.

PEERLESS ENAMEL
ASK YOUR JOBBER
GLOSS BLACK FOR STOVE PIPES AND ALL IRON WORK
ALUMINUM FOR RADIATORS PIPES, ETC.
WRITE FOR SAMPLE
NICKEL PLATE STOVE POLISH CO., MFRS.
CHICAGO

The S. Obermayer Co.
We have been manufacturing
"Everything you need in your foundry"
Since 1874
Get our 400 page catalog No. 40A
The S. Obermayer Co.
CINCINNATI
CHICAGO 90
PITTSBURGH

QUINCY PATTERN CO
IRON & WOOD
STOVE PATTERNS
QUINCY, ILL.

PATTERNS
For Stoves and Heaters
First-Class in Wood and Iron
Vedder Pattern Works, Troy, N.Y.
Established 1855

PATTERNS
For Stoves and Heaters
The Cleveland Castings Pattern Co.
CLEVELAND, OHIO

WELLER PATTERN CO
DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS
QUINCY, ILL.

THE GEO. W. COPE STOVE PATTERN WORKS
Cor. Brush and Woodbridge Streets
DETROIT MICHIGAN

The human mind is so constructed that it is appreciably affected by repetition—and, after all, advertising is only repetition.—*Truman A. DeWeese.*

SATISFACTION

is guaranteed when you use our Quality Metal Ceilings and Side Walls. The designs are sure to please. Our prices are right.

¶ Being located in the heart of the Central States, our shipping facilities are the best. Our stock is always complete and our treatment of customers the finest.

¶ Get better acquainted with us and you will be amply repaid.

F. O. SCHOEDINGER, - Columbus, Ohio

Dept. 3 **146 N. Third Street 148**

Wheeling Corrugating Co.

Manufacturers of

National Board of Fire Underwriters' Guaranteed Fire Door Special I. C. Tin Plate

Packed in each box is our Guarantee that each and every plate is made in strict accordance with the specifications laid down by the National Board of Fire Underwriters. Each sheet is stamped W. C. CO.'S 20 LBS. FIRE DOOR SPECIAL.

W.C.CO'S 20 LBS FIRE DOOR SPECIAL

For attractive prices, apply to

Wheeling Corrugating Co.
WHEELING, W. VA.

or to Branch Offices and Warehouses.

BOSTON, MASS. — NEW YORK CITY
CHATTANOOGA, TENN. — PHILADELPHIA, PA.
CHICAGO, ILL. — ST. LOUIS, MO.

Thousands of Designs

Immense stock of Stamped Zinc Architectural Ornaments for Cornice Makers and the Building Trades ready for immediate shipment at attractive prices.

If you haven't a copy of our large ornamental catalog No. 9-H, notify us and we will send you a copy at once.

THE W. H. MULLINS COMPANY
Manufacturers of
Architectural Sheet Metal Work, Statuary, Fireproof Windows and Skylights,
FRANKLIN STREET, SALEM, OHIO.

SQUARE ELBOWS

Made of One Piece of Metal, Bear Trade Mark

F. Dieckmann

Galvanized After Formation—Charcoal, Copper, Old Style.

THE F. DIECKMANN CO.
Station B. CINCINNATI, OHIO

Two Hand Made Roofing Plates of High Standard

BERGER'S

TOP NOTCHER
40 lb. Coating.

TUSCORA
25 lb. Coating.

Two Points of Importance in their Manufacture

1 **Base:** Extra Soft Open Hearth

2 **Coating Process:** Through Palm Oil, Flux and Finish

Weight of Coating on Every Sheet

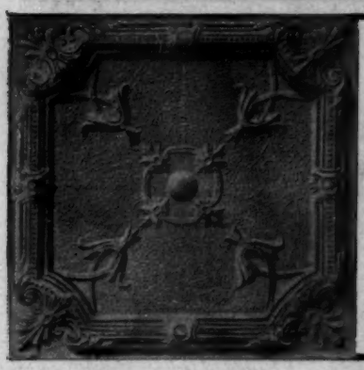
We also furnish Open Hearth Steel Base Plates in all other weights of coating; Charcoal Base Plates; Bright Charcoals; Bright Cokes including furnace pipe sizes.

GET OUR PRICES. WRITE TODAY.

Ask us also for prices on Roofing, Siding, Ceilings, Eave Trough, Pipes, Sheets, Etc.

THE BERGER MFG. CO.
CANTON, OHIO.

Branches:—NEW YORK, PHILADELPHIA, BOSTON, CHICAGO, ST. LOUIS, MINNEAPOLIS, SAN FRANCISCO, ATLANTA.



Beautiful Designs
ARE WHAT SELL

Metal Ceilings and Side Walls

provided they have the other requisites, such as Accuracy of the Plates, Originality of Design, Perfect Fitting Joints, and the best materials used in their Construction. OUR GOODS HAVE ALL THESE AND MORE. Let us show you. Write for Catalog "A" to-day.

Wm. Foster & Sons Sheet Metal Works
1000 E. Carpenter Street SPRINGFIELD, ILL.

Just Out
Our New Ceiling Catalogue No. 28

Sent on Application to the Trade. Write Today.

FRIEDLEY-VOSHARDT CO., 194-204 Mather Street, CHICAGO, ILL.

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths.

Will not burst when full of ice.

CLARK, QUIEN & MORSE, PEORIA, ILL.

"CORTRIGHT"

REG. U.S. PAT. OFF.

STAMPED ON ALL THAT ARE GENUINE

We don't suppose you care whether they do or not, do you?

Well, if you have been handling CORTRIGHT METAL SHINGLES for years, you'll answer yes, and if not, you'll answer no—until we tell you why it's put there.

CORTRIGHT SHINGLES were put on the market 22 years ago and the first roofs put on are as good as new today.

Tinners didn't like them at first, but when the tinners realized that they opened a new field, a field in which there were big profits, their attitude changed. Many have made fortunes laying them. For churches, schools, public buildings, etc., where plain tin would not be considered, nine times out of ten CORTRIGHT SHINGLES are just the thing. See the point.

Our new catalog will tell you all about them. Send for it today.

CORTRIGHT METAL ROOFING CO., Philadelphia and Chicago

TRADE "TITELOCK" MARK

METAL SHINGLES

"TITELOCK"

PAINTED TIN SHINGLES ARE SUPERIOR TO WOOD
GALVANIZED SHINGLES ARE SUPERIOR TO SLATE
COPPER SHINGLES ARE SUPERIOR TO TILE

SEND FOR SAMPLES AND BOOKLET

MILWAUKEE CORRUGATING CO.

MILWAUKEE, WIS. CHICAGO, REGISTERED KANSAS CITY, MO.

LIGHTNING FIRE AND WATER PROOF

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS
ROOFINGS AND SIDINGS
STEEL CEILINGS
CORNICES
SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

THE AMERICAN ARTISAN ADVERTISING MANUAL

A NEW ONE, JUST OUT. The most complete and most valuable treatise upon the subject of advertising as it is applicable to the retail merchant ever published. ::: NO DEALER CAN AFFORD TO BE WITHOUT IT.

Price $3.50 Per Copy. For Sale by Your Bookseller or By

DANIEL STERN, Publisher, 355 Dearborn Street, CHICAGO, ILL.

GRIFFITHS' GENUINE CHARCOAL IRON ROOFING PLATES

CHARCOAL IRON FOR ROOFING holds the record for endurance—eighty years of service and still good.

W. G. Backus & Sons of Pittsfield, Mass., sent out pieces of sheet roofing put on a building by Mr. Backus' father eighty years ago, the under side being as good as ever, the upper side still in serviceable shape. Do you want such high grade service? You can get it by buying CHARCOAL IRON ROOFING PLATES from the

GRIFFITHS' CHARCOAL IRON MILLS, - - - - WASHINGTON, PA.

QUALITY AND SERVICE

are paramount in the manufacture and sale of

AMERICAN SHEET & TIN PLATE CO. APOLLO BEST BLOOM TRADE MARK REGISTERED PITTSBURGH

APOLLO BEST BLOOM

Galvanized Sheets

They are the dependable kind when it comes to the testing period—whether in the shop or on the building. They are uniform throughout, even in gauge, bend without breaking, and work well. Merit alone has made Apollo the standard of all galvanized sheets. Important jobbers everywhere sell them. Our Weight Card giving sizes, gauges and weights of galvanized sheets is free for the asking.

American Sheet and Tin Plate Company,

FRICK BUILDING, PITTSBURGH, PA.

Standard Metal Shingles

The Canton Ventilator

Made with Metal and Glass Tops and with and without **Automatic** closing device.

THE CANTON MFG. CO.
CANTON, OHIO

Makers of
Cornice, Skylights, Metal Ceilings, Eaves Trough, Conductor Pipe, Etc.

You Must Have The Best Tin For The Best Roofs.

THE BASSETT-PRESLEY CO.

CLEVELAND, OHIO

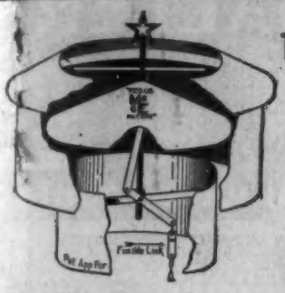
The Powers AUTOMATIC Chimney Top

Iron mountings only or complete with cover and vane.

Double the sale and triple the efficiency of smoke stacks.

Powers & Williams
Streator, Ill.

Ask us for prices on skylight glass and metallic skylights.



The "STAR" VENTILATOR

AND

The FIRE RETARDING "STAR" VENTILATOR and DAMPER COMBINED

Embody everything in the Best Scientific Storm Proof Ventilator.

MERCHANT'S METAL "SPANISH" TILES and "GOTHIC" SHINGLES.

These Tiles and Shingles have proved meritorious for years. They are in demand where ornamentation is essential. Also Lightness and Durability are special features of merit.

Write for Booklets.

"Reg. in U. S. Pat. Off."

Merchant & Evans Co.

Sole Manufacturers

Philadelphia New York Brooklyn Baltimore Chicago Kansas City Denver

---

INLAND OPEN HEARTH SHEET STEEL

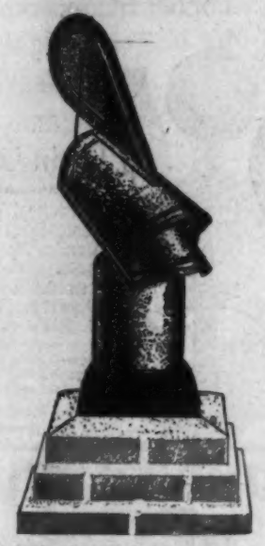
SOFT AND EASY WORKING

GALVANIZED Perfectly Coated—will not peel.
BLACK Blue Annealed and Box Annealed.
ROOFING Painted and Galvanized—all kinds.

SEND FOR CATALOGUE

INLAND STEEL COMPANY .·. CHICAGO

Iwans' Volcano Revolving Chimney Top



Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

Iwan Brothers

Mfrs. of Hardware Specialties

SOUTH BEND, INDIANA.

SKYLIGHTS

for any purpose. Our new and complete catalogue is now ready for distribution. Let us send it to you. Write to-day.

THE CANTON ART METAL CO.

CANTON, OHIO

"QUALITY PRODUCTS"

Tin Plate, Galvanized and Black Sheets and Sheet Metal Goods of all kinds.

DELPHOS B. B. GALVANIZED SHEETS

Absolutely Perfect.

DELPHOS Corrugated, Pressed Standing Seam, V Crimp, Three V Crimp, Roll, and Roll & Cap Galvanized Roofings.

All Roll Roofings Resquared and Double Cross Locked.

DELPHOS Galvanized Eaves Trough, Conductor Pipe, Elbows, Etc. Roofing Plates (All grades).

SOLDER—Faultless, B. T. & L. and Standard Brands

DELPHOS MFG. COMPANY

DELPHOS, OHIO

Write for our New Catalogue.

Makers of LOCK JOINT METAL SHINGLES. Will not only save money, but secure the best Metal Shingle on the market. Write for prices and get our samples.

ELLER MFG. CO. : : CANTON, OHIO

WALTER'S

Shingles that last

Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? This is your opportunity. Write for catalogue, samples and prices.

National Sheet Metal Roofing Co.
JERSEY CITY, N. J.

Steel Cornice Brakes

Do the GREATEST Variety of Work

Strongest Brakes Made
Never Get Sprung
Sold at the Lowest Price

Dreis & Krump Mfg. Co.
Halsted & 32nd Sts., Chicago, Ill.

ROOFING SLATE

All Grades Manufactured and Sold by

THE AULD & CONGER CO.
999 Prospect Street
CLEVELAND, OHIO

Roofers' Supplies, Tools, Lightning Slate Dresser.

We Mine Our Own Slate

EARL'S IMPROVED REVOLVING VENTILATOR

Runs in a self-lubricating bearing that is not affected by heat or cold, and never requires any oil or grease. The Fan revolves without any noise, producing a current of air upward, which positively prevents any down draft. Write for circular.

BERGER BROS. COMPANY
TIN PLATE, SHEET IRON, Etc.
Warerooms and Factory:
100-114 Broad St., PHILADELPHIA, PA.

H. WEISS & CO.

20 CLIFF ST., NEW YORK

Skylight Gearing and Chain Lifts

Tinsmiths' and Plumbers' Tools. Cornice Makers Tools. Coppersmiths Tools. Pipe Threading Machines.

Second-Hand Goods Bought, Sold and Exchanged

Slitting Machine for No. 12 Iron

TOOLS FOR SHEET METALS

Single and Double Lock Edger.

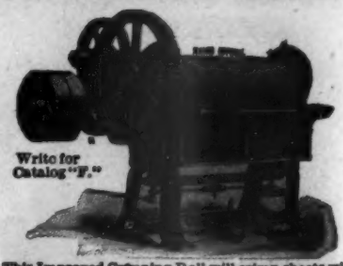
INCLUDING

Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery

MADE BY

NIAGARA MACHINE & TOOL WORKS, Buffalo, N. Y.

CRIMPING ROLL



Write for Catalog "F."

This Improved Crimping Roll will crimp sheets without buckling them. We build a complete line of Shears, Punches and Bending Rolls, all sizes for hand or power drive. BERTSCH & CO., Cambridge City, Ind.

PORTABLE PUNCH No. 20

Made entirely of STEEL

Punches ¼ in. hole in ¼ in. and equivalent

Let us send you one on trial.

Write for circular and price of this and other Marvel Punches and Shears.

MARVEL

Patent applied for.

ARMSTRONG-BLUM MFG. CO.
106 N. Francisco Ave., Chicago, Ill.

Combination Pipe Fitter

A Complete Outfit for Working Sheet Metal Pipes.

Cuts Stove, Heater and Ladle Pipes at any angle. Will also do the Crimping Write for Circulars and Prices.

BLUMER-DOSCHER MFG., CO.
408 Crescent St., - Brooklyn, N. Y.

Collar Edging Rolls

Deep bead. Positively guaranteed not to cut the metal. Very rapid. No experience required.

Send for circular.

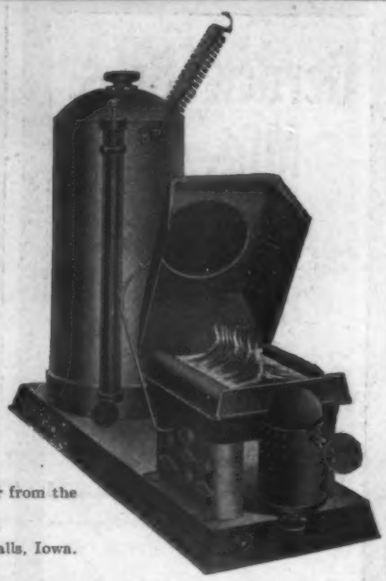
C. DeWITT WAGNER,
Cedar Rapids, Iowa.

Good Evidence

EVERY USER OF

THE LUNDY DOUBLE BLAST SOLDERING FURNACE

considers it the very best soldering furnace on the market as is evidenced by the following letter which is only one of many hundreds we have received from more than satisfied customers.



"We keep two tinners the year around and have used all makes of soldering furnaces, and since putting in one of your make, we have decided that it is far ahead of the others, in fact one of the old furnaces which was considered the best, now lays off to one side, and the LUNDY occupies its space. It is certainly a saver on gasoline and a heater from the start."

JOHNSON & WYTH CO.,
Cedar Falls, Iowa.

The LUNDY is **guaranteed** to heat twice as fast as any other, with one-half the gasoline. Enough air can be pumped in one minute to last all day.

Our Offer Ask your jobber to send you one, or we will ship direct. After trying it for ten days, if you think you can find one to suit you better, return it at our expense.

Write for descriptive matter.

Meyer Foundry & Mfg. Co.
SOUTH BEND INDIANA

TO THE WILD FLOWERS WITH YOU!

No, that is not exactly the remark the patient and long suffering mechanic made after spending an hour or more trying to make a Fire Pot sold to him as being Just as Good as the No. 1 work. Oh, no.—If that fire pot followed directions it must now be in a melted state, and a beautiful cherry red, or possibly a white heat. While the mechanic now insists upon having a genuine No. 1 Fire Pot. He knows it has no equal, and that it soon saves its cost.

No. 1 Fire Pot. $6 Net. Jobbers supply at factory price, or we will ship direct if cash accompanies the order.

CLAYTON & LAMBERT MFG. CO.,
Detroit, Mich., U. S. A.

"Always Reliable"

OUR No. 21 TORCH BEST IN THE MARKET

This Torch is far superior to any other torch with pump in body; having in addition to the regular automatic cork check a positive shut-off by screwing down pump plunger, which closes the needle valve in bottom of pump.

Packed one in wooden box, properly labeled. Write for our catalog No. 10 on furnace and torch, also catalog No. 5 on plumbers' tools, etc.

Pat. applied for.

OTTO BERNZ
21-43 So. 13th St. NEWARK, N. J.

Manufacturers of

Steel Ceilings and Side Walls, Cornices, Skylights and Fireproof Windows, Roofing

Eastlake Metal Shingles
Prepared Asphalt Roofings

Send for Catalogue

The W. J. BURTON COMPANY, Detroit, Mich.

RUBY FLUID

Soldering and Tinning Flux

It is anti-rusting, non-corrosive, non-poisonous and non-explosive, not affected by age, change of temperature, or exposure in open vessels. It is a perfect flux for GALVANIZED and ALL other metals. Shipped in tin cans, ready for use. On approval. Ask for booklet.

The Ruby Chemical Co., Johnstown, Ohio, U. S. A.

Chas. M. Hoover, Sales Mgr., Revere House, Chicago.

C. G. Hussey & Company

PITTBURGH, PENNA.

Manufacturers of

Soft Copper,	Copper Nails and Tacks,	Cold Rolled Copper,
Copper Gaskets,	Tinned Copper,	Special Shapes Sheared or Stamped,
Copper Bottoms,	Polished Copper,	Slating Nails,
Soldering Irons,	PROMPT SHIPMENT FROM STOCK.	

THE AMERICAN ARTISAN:—
Please take out ad. Answers were very prompt.
Yours truly, R. W. ISAACS.

Gerock Bros. Mfg. Co.

Sheet Metal Ornaments and Statuary

Detail Work a Specialty

Ask for Catalogue

1227 Manchester Ave.
ST. LOUIS, MO.

Gray's School of Sheet Metal Pattern Drafting

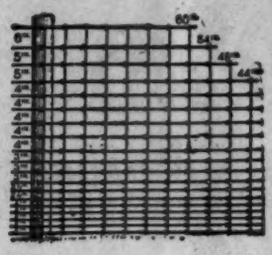
We do not teach arithmetic or any other preliminary studies. But we do teach Sheet Metal detailing and development of patterns from the first lesson to the last.

Our methods are the shortest and easiest. We can help any mechanic or advanced apprentice who is willing to study.

There is no time limit to this course, although the average mechanic requires twenty-five months, if he is employed during the day and studies during his spare time.

Write for full information concerning this school, also for full size school drawing. Enclose 4c in stamps to cover postage.

GRAY'S SCHOOL,
1028 Jackson Ave., New York



The Denning Fence

¶ Is the Fence that pleases your customer. It is made on scientific and practical principles. It is made in various sizes, weights and meshes, for stock, hogs, poultry and rabbits.

Write for catalogue and prices on Lawn and Cemetery Fencing, Gates, Barb Wire, Nails, Staples, Portable Corn Cribs and Grain Bins.

The Denning Wire & Fence Co., Cedar Rapids, Iowa.

We Manufacture 12 and 14 Mesh

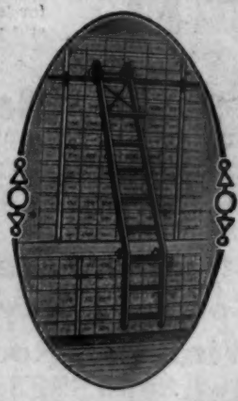
ALUMINOID

in all widths made of 33 wire.

Heavy in 28 wire.

SEND FOR SAMPLES.

NATIONAL WIRE CLOTH CO., Niles, Mich.



The Milbradt Ladders

ALWAYS PROVE HIGHLY SATISFACTORY

because they are made of the very best material that can be obtained, finished up in first-class style, and as there is nothing about them to give or wear out, or get out of order, will last indefinitely.

Write for our illustrated catalogue.

MILBRADT MFG. CO.
1440 N. 8th Street, - - ST. LOUIS, MO.

We Have a Hardware Delivery Wagon That You Can Depend Upon

Body 20 inches from the ground, full width; regular height wheels, and yet will turn short.

EASY TO LOAD AND UNLOAD

Durability guaranteed. Complete catalogue on request. Mention this paper and address in full.

SYCAMORE WAGON WORKS, 109 EDWARDS ST., **Sycamore, Ill.**

100 TINNERS' PATTERNS

Complete for $1.00

Sent Postpaid on Receipt of Price.

DANIEL STERN,
355 Dearborn St. CHICAGO.

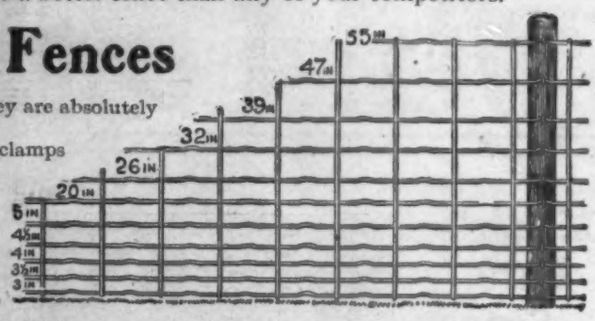
For a Bigger Fence Business

It is absolutely necessary that you handle a better fence than any of your competitors.

"Pittsburgh Perfect" Fences

are so far ahead of any other on the market that they are absolutely without competition.

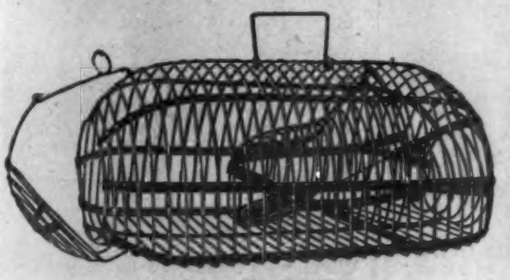
This fence is **Electrically Welded**—it has no wraps or clamps to hold moisture and **cannot rust.** It is the strongest fence made and will curb the most powerful beasts. It can be adjusted to uneven ground—as a perfect fence it is in a class by itself.



WRITE US FOR PARTICULARS TODAY

PITTSBURGH STEEL CO., Pittsburgh, Pa.

We Make More Rat Traps Than Any Other Makers in the World.



ALL LOCKED RIBBED

Five Sizes. Steel Wire and Ribs. Patent Flange, Safety Doors. All Traps Lacquered. Rust Proof. Traps always set. Rats cannot escape when in the Trap. Strongest, best made, most salable Traps in the Market.

WRITE FOR 1909 CATALOGUE

We make all kinds of Brushes and Wire Goods. Started in 1819 and still at it. GET OUR PRICES.

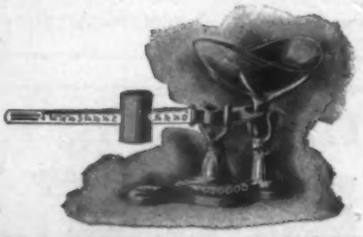
THE BROMWELL BRUSH AND WIRE GOODS CO., CINCINNATI, OHIO.

Osgood Scale Company

U. S. STANDARD

ALL KINDS

Binghamton, N. Y.



Bishop's Quick Working Forms

THE WORK

for closing end of Eave Trough in corrugations, as shown herewith.

You can close an end much quicker, neater and cheaper than in any other way. When you cut a trough, you can put an end in both parts, thus making no waste.

The frost will not burst the end out. You can close old work from a ladder.

The form is made in five sizes, 3½, 4, 4½, 5 and 6. For sale by jobbers or tinning specialty houses.

BISHOP HARDWARE COMPANY,
Dowagiac, Michigan.

Why Carry Bolts and Screws

Unless your stock of these be supplemented with Star Expansion Shields to fit?

All Styles and Sizes

From a No. 5 Screw Upward

Write For Catalog and Samples Which Are Free

STAR EXPANSION BOLT CO., :: Bayonne, N. J.

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

NAILS THAT NEVER RUST

KEYSTONE BRAND GALVANIZED NAILS
CUT OR WIRE
Evenly Coated Perfectly Separated
KEYSTONE NAIL CO., Pittsburgh, Pa.
Send for catalogue and prices.

Put That Advertisement in THE AMERICAN ARTISAN If You Want Results

"SURE CUT" CAN OPENER
PATENTED 7, 19, '04

TWO CUTTERS
ONE FOR ROUND CANS
ONE FOR SQUARE CANS
Retails for 10 cents

5—Grades
CLEAVER AND TENDERER.

ICE CHISELS
Six Styles.

We manufacture a large line of Bread, Butcher, Carving and Paring Knives, Can Openers, Family Cleavers, Shoe and Putty Knives, Wall Scrapers, etc.
Write for Prices.
IRA F. WHITE & SON CO.
NEWARK, N. J.

Kitchen Knives

Maher's Pure Copper Cable

We now have the best Lightning Rod Factory, and the best of machines for twisting our cable. We make all sizes of Pure Copper Cable—30, 32, 34, 36, 40—or in fact any size you want, and our fixtures are the best that can be made—we manufacture them all and know just what they are. We also loan you one of the best static machines on earth free with an order for 2,000 ft. We use the purest copper we can buy and will guarantee it over 99% pure. And this season we have the price and that is what we are all looking for. We do not want all the profit and are willing to divide with you. Just drop us a line and we will explain and send samples of the best Copper Cable Lightning Rods and Fixtures at a price that you can make some money handling it.

MAHER & SON LIGHTNING ROD CO., Preston, Iowa

ARE YOU ON?

If not, get on to the fact that we are sole manufacturers of the celebrated **Silver Colored Strand Pure Copper Lightning Rods,** containing 30 pure Copper wires uniformly woven into a cable. This trade-mark is best appreciated on the full reel. It denotes quality and workmanship of the highest order. Farmers want it on first sight and it doesn't cost more than the ordinary.

Every reel bears our trade-mark. None genuine without it.

Our Fixtures and Ornaments are good looking as well as good wearing.

Send for our beautifully colored catalogue "B" and let us negotiate with you for unoccupied territory.

"ELECTRA" LIGHTNING ROD CO. CRESCO, IOWA.

Lightning Rod Supplies

Copper Wire Cable, Copper Tube Rod
Lightning Rod Points, Etc.

A large stock carried in Chicago. Write for prices.

A. C. DALLAS & SON, Inc., Room 57, 163 Randolph Street, Chicago, Ill.

IMPROVED ADJUSTABLE "S" NUT WRENCH

This wrench is especially useful in corners and confined places where the ordinary Monkey Wrench is nearly useless.

All parts strong and durable, the operating nut is steel and the sliding jaw a steel drop forging. The wrench is thoroughly made and parts are interchangeable. Bemis & Call Improved Adjustable "S" Wrenches are the standard among wrenches of this style. Write for our complete catalog.

TRADE B&C MARK

BEMIS & CALL HARDWARE AND TOOL CO., Springfield, Mass.

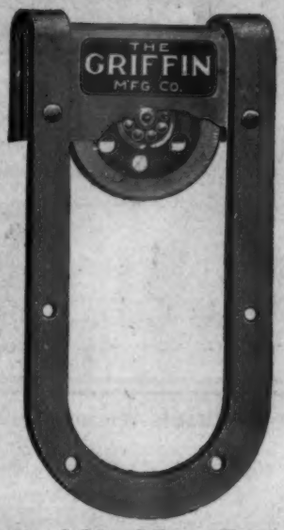
LIGHTNING RODS

We manufacture Pure Copper Wire Cable Lightning Rods, made of 28, 30 and 49 Wires, with complete outfit of trimmings.

E. A. FOY & CO., Cincinnati, Ohio

Trade Supplied at Lowest Rates.
Send for Catalogue "B."

GRIFFIN'S



Improved Steel Door Hangers
Made Entirely of Steel
(Wheels excepted)

These Hangers have hard steel Axles and Roller Bearings. Anti-Friction on any length of track.

Guaranteed to handle the heaviest doors satisfactorily.

Write for complete catalog of Hinges, Butts, Shelf Brackets, Door Bolts, etc.

THE GRIFFIN MFG. CO.
Home office and Factory
1500 Cherry St., ERIE, PA.
Chicago office 85 E. Lake Street.

Money is easy to make when you have the SOLE AGENCY of the

QUEEN WASHER

It is different from the rest and easily the best
That's Why It Will Sell
Sold to Jobbers only for specified territory.
Write For Particulars
JAS. H. KNOLL, - - Reading, Pa.

Shell Boxes,
Hardware Shelving,
Counters,
Screw, Bolt and
Seed Cases,
Store Ladders,
Glass Cutting Boards,
Immediate Shipments,
Send for Booklet.

W. B. HELLER & CO.,
MONTPELIER,
OHIO

- SHELVING -
WARREN SYSTEM
SELF PAYING
HARDWARE STORE EQUIPMENT
IN INTERCHANGEABLE SECTIONS
& SCREW, BOLT & GUN CASES
J. D. WARREN MFG. CO. CHICAGO U.S.A.

INTERCHANGEABLE
LOCK-CORNER SHELF BOXES
For the Hardware Trade.
THE A. H. GREEN CO.,
97-101 Warren St., NEW YORK.

CUT THIS OUT
To the Publishers
The American Artisan and Hardware Record
355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

Name .....
Address .....
Town ..... State .....

WILL NOT LEAK!

"Success Oil Cans"

Have solved the problem. No more cans returned because they *leak* if you buy Success Oil Cans.

Four sizes: 1, 2, 3, and 5 gallons. All made of heavy IX tin. Large spout, raised bottom, assorted colors, red and blue lacquer.

Write for prices and further particulars.

Made solely by

STANDARD STAMPING CO.
2000-2006 N. Broadway,
SAINT LOUIS, MO.

WILL NOT LEAK!

The "Universal" Washer

Adjustable Lever for sitting or standing position.
High Speed from lever.
Slow Speed from fly wheel.
Stays in Gear when opening lid.
Nothing to Uncouple to raise lid.

Sold on exclusive agency plan. Write today.

Rotary Washing Machine Company
St. Louis, Mo.

Washing Machines
Are Staple—
They are good
Things to use
Which makes
Them good
To sell—
That is if
They are
Reliable
Machines.

The White Line
Of Washing
Machines are
Reliable—
Fully guaranteed—
Safe to buy—
And safe
To sell.
Do you
Handle
Them?

White Lily Mfg. Co.
1500 Rockingham Road, Davenport, Iowa.

LUFKIN

Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.

Please Mention THE AMERICAN ARTISAN

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.
New York London, Eng. Windsor, Ont.

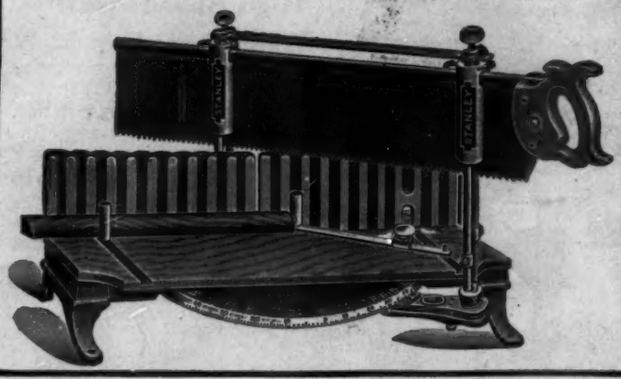
DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

HENRY DISSTON & SONS, Inc.
Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, PA.

We Are Leaders



In Mitre Boxes

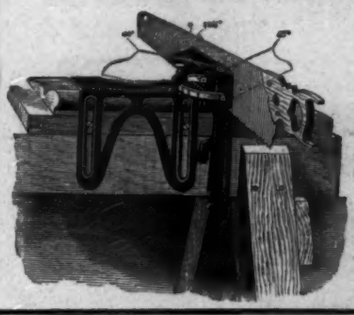
Having the most complete line ever offered the trade.

AND OUR PRICES ARE RIGHT.
FULLY EQUIPPED WITH LABOR SAVING ATTACHMENTS.
ACCURATE—COMPACT—STRONG and DURABLE.
If you haven't our catalogue, write for it.

The Stanley Rule & Level Co.
New Britain, Conn., U. S. A.

"SEAVEY" MITRE BOX

meets EVERY requirement.



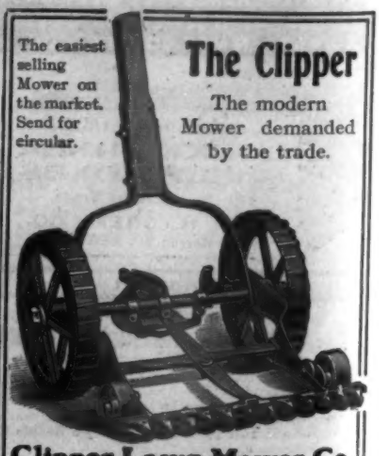
Cuts any angle-special or regular.
Needs no special saw.
Lightest box made.
Can be instantly applied.
The ONLY Mitre Box made that is attachable to inside or outside work without a special attachment.
Prices to-day from your Jobber or write for the Green Book.

SMITH & HEMENWAY CO.
108-110 Duane St., New York, U. S. A.

The easiest selling Mower on the market. Send for circular.

The Clipper

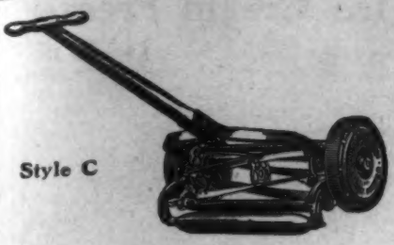
The modern Mower demanded by the trade.

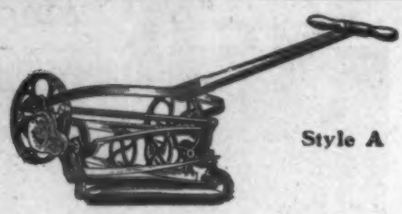


Clipper Lawn Mower Co.
DIXON, ILL.
Manufacturer of Hand and Pony Mowers and Marine Gasoline Engines

Where Successful business men have advertised is pretty safe to advertise.

The Genuine
Philadelphia
Lawn Mowers


Style C


Style A

Recognized as

Standard Mowers

The World Over

They are guaranteed against imperfections and warranted to give entire satisfaction.

Be sure you handle the lawn mowers with the words PHILADELPHIA LAWN MOWER CO. cast on the wheels. They are the mowers that will entirely satisfy your customers.

The Philadelphia Lawn Mower Co.

3101 to 3109 Chestnut Street PHILADELPHIA, PA., U. S. A.

Style E

Send for CIRCULARS and PRICES

Simple in construction, light running, durable. The best Hand and Horse Mowers on the market.

Style K

"SIMMONS"
Laclede Bicycles

CARE IN SELECTION OF MATERIAL

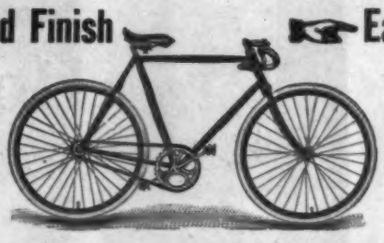
SKILL IN THE BUILDING

STRONG AND DURABLE

Beauty in Design and Finish

Easy Running

ORDER EARLY!



ORDER OFTEN!

"Simmons" LACLEDE Bicycles THE FOREMOST BICYCLES IN AMERICA

SEE OUR SALESMAN OR WRITE US FOR PRICES

Address DIVISION NO. 5

SIMMONS HARDWARE COMPANY

INCORPORATED

Manufacturers and Distributers

ST. LOUIS NEW YORK

For the CONVENIENCE OF OUR CUSTOMERS, Complete Stocks carried at Toledo, Ohio; Minneapolis, Minn.; Sioux City, Iowa, and Wichita, Kans.

Champion Triple Action Ice Cream Freezer

WHAT IT IS The **"Champion" Freezer** is especially adapted for Household Use. Its principles of construction, beside being absolutely New, are entirely Different, Novel and Better than any of the new style of household freezers placed on the market during the past few seasons. Besides being better, you can guarantee the **"Champion"** to your customers as being durable.

WHAT IT IS CONSTRUCTED OF The Outside Tub is made of best galvanized iron. The dasher is made of malleable iron, heavily tinned, with a Wood Scraper, which prevents the cream from adhering to the sides of the freezing can while in process of freezing. The Cylinder or Freezing Can is made from block tin (re-tinned.)

WHAT IT WILL DO We know that if you sell freezers, and wish to handle one that will give your trade satisfaction, and do all that the manufacturers claim it will do; that you can sell at about one-half the price of any of the old style freezers (besides giving you a liberal profit) and a freezer that will make the finest Ice Cream, Sherbets and Frozen Desserts in a few minutes, our **"Champion" Freezer** is the one for you to handle.

Made in Four Sizes
1 Quart.....each. $1.00
2 Quarts.....each. 1.25
3 Quarts.....each. 1.50
4 Quarts.....each. 1.75

17-19 Ninth St. REID-EDELMUTH MFG. CO. Brooklyn, N. Y.

PELOUZE Improved Family Scales

with Extra Large Dial—New Artistic Base

They can be instantly adjusted for plate, basket or scoop.

CAPACITY 24 pounds by ounces

No. E90 Steel Platform
No. 90½ Tile Platform

No. T95 Tin Scoop
No. B95 Brass Scoop

The Pelouze Scales are invaluable to proper cooking, indispensable in preserving. They keep check on your purchases. Soon pay for themselves. No weights to get lost. Absolutely automatic. These *Scales* are beautifully finished in black enamel and are artistically ornamented. Extra Large Dial with silver center and gold border. Very attractive. Made of cold rolled steel.

Dealers should specify PELOUZE Scales in ordering from their jobber. Send for Catalog K." 40 Styles Counter, Market, Postal and Confectionery Scales, Spring Balances, etc.

PELOUZE SCALE & MFG. CO.
405-413 Ohio Street, CHICAGO

FREEZERS

"LIGHTNING"

THAT EXCEL IN
Easy Running
Quick Freezing
Economy
Convenience
Practical Results

THAT ARE
Well Advertised
In Demand
Easily Sold
Satisfactory in Use
Of Known Reputation

"BLIZZARD"

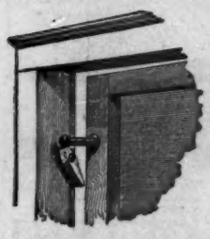
THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

Sold by Leading Jobbers Catalog Sent Free

NORTH BROS. MFG. CO., Philadelphia

"Dime" Screen Door Check



Stops the slamming of the **Screen Door**

Sold at all Hardware Stores.

Send for circular and ask for prices.

By mail, 12 cts.

CALDWELL MFG. COMPANY
41 Jones St., Rochester, N. Y.

Stand In With The Housekeepers

Give them the Jack Frost Ice Cream Freezer and watch them go to making ice cream in their homes.

If you would like to see something doing in the freezer trade this season put in a stock of

JACK FROST
Multiple Motion
Ice Cream Freezers

They are the freezers for family trade.
They will do their own advertising when they get started.
They make ice cream making easy.
Easy turning, quick work, the least ice, and no danger of spoiling the cream with oil or salt water.
Let us send you catalog No. 85 with terms and particulars.

STURGES & BURN MFG. CO.
FACTORY Harrison, Green and Peoria Sts. **CHICAGO, ILL.** OFFICE 235 South Green Street

The Largest Assortment of HONES in the world.

Also a complete line of cutlery, razor strops and hardware specialties.

S. R. DROESCHER, Importer and Mfr.
79 Warren St., New York, N. Y.

AUTOMATIC SANITARY ICE CREAM FREEZER

The FREEZER that has made the Sweat-making, Back-breaking, Crank-Freezer Out-Of-Date.

¶ There is not another Freezer like it on the market. ¶ It has no dasher, crank nor gears to get out of order and is so easy to operate that a mere child can do the freezing. ¶ Its cylinder is rust-proof and absolutely sanitary, being made of white enameled steel; inside cover of aluminum. ¶ This Freezer is made with 1, 2, 3 or 4 cylinders of 1 to 4 quarts capacity each. ¶ It will freeze cream in five minutes. ¶ Send for descriptive matter and prices.

The New England Enameling Co.

MIDDLETOWN and PORTLAND, CONN.

H. GINSBURG,

Sales Agt., 736 Broadway, New York

Can't wait when cherries are ripe—must have the right machine, *quick*

Too late, then, to stock up. Better drop a line to your jobber *to-day*

Wherever cherries grow women who know, and 'most all of them do, will want

an **"ENTERPRISE"**

Cherry Stoner

If you have mislaid that latest red-covered catalogue of ours, write for another copy. No hardware store is fully equipped for business without it.

Also makers of the famous "Enterprise" Meat and Food Choppers; Rapid Grinding and Pulverizing Mills; Sausage Stuffers and Lard Presses; Fruit Wine and Jelly Presses; Bone, Shell and Corn Mills; Cold Handle Sad Irons, Etc.

The Enterprise Mfg. Co. of Pa., Philadelphia, U. S. A.

21 Murray Street, New York — 438 Market Street, San Francisco

What does the retail mail order problem mean to you?

There is a way—and an effective way—to meet—and defeat—retail mail order house competition.

If you are a victim, you will, undoubtedly, be glad to learn of this way—to learn what we have accomplished toward solving the problem.

We have done more, and are doing more, to help the retail merchant overcome this competition than all the other wholesale concerns in America put together.

This is said not in a boastful spirit, but because it is necessary—and because it is true.

We have gone at the matter systematically.

We have made a searching and comprehensive study of the perplexing problem.

The results have been freely given in the columns of our catalogue and through our booklet, "The Retail Mail Order Problem"—which has been asked for by more than a hundred thousand American merchants, and read by perhaps twice this number. A copy is yours for the asking.

But even better than this, we have merchandised to the end that we might help our customers defeat this competition.

To be sure, we have not bought the shoddy, slimsy junk that far too often curses both buyer and seller.

But through honest goods, our immense buying capacity and our economical printers' ink method of selling, we have been able to reduce delivered costs on worthy merchandise to a point where the local merchant can meet this competition—with superior values.

If you want to go further into this question, ask for the above mentioned booklet.

Also, you will, of course, want a copy of our current catalogue.

It goes to any merchant who will make a request for No. N713.

Butler Brothers

Exclusive Wholesalers of General Merchandise. New York, Chicago, St. Louis, Minneapolis. Sample Houses—Baltimore, Omaha, Dallas, San Francisco, Seattle.

"BLUE BOOK" CREDITS

—OF THE—

Iron, Steel, Hardware, Stoves, Tinware, Plumbing, Etc., Trades.

This Agency issues as complete and reliable book of credit ratings in this special branch of trade as has ever been published, containing about 400,000 rated names of wholesalers, retailers and manufacturers, covering the trade thoroughly. The ratings are conservative and very reliable. The *paying record* is based upon *ledger experience* of credit men everywhere.

You buy credit information. Isn't it the part of a good buyer to post himself thoroughly on the merits of a book of ratings, gotten up especially for his trade by men with ample capital and who are thoroughly trained in this class of work and who make a *specialty* of it?

Terms of subscription can be had by addressing Executive Office

Iron and Hardware Mercantile Agency.

157 Federal Street. BOSTON, MASS.

THE ELLIOTT

¶ This is the season of the year for selling Sanitary Dairy Pails, cream cans and milk strainers. The "Elliott" Sanitary Dairy Pails are guaranteed against fever germs, milk taint, or rusting out, and are approved and used by the Agricultural Colleges of Wisconsin and Minnesota on their dairy farms. Made of the finest class of material under our patent process. Mr. Live Wire Merchant, buy the best, sell the best. If we are not represented in your town send for catalog and price lists and secure the exclusive sale, of the "Elliott" line, manufactured only by the

ELLIOTT
PATENTED FEB. 17. 1903.

ELLIOTT MANUFACTURING COMPANY
WARREN, ILLINOIS
Makers of Good Goods Only

AGATE NICKEL-STEEL WARE

AGATE L&G Mfg. Co. NICKEL-STEEL WARE

is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade-mark.

Look for the blue label.

Lalance & Grosjean Mfg. Company

Chicago New York Boston

"Atlantic"

Austrian Export Enameled Ware

Turquoise Blue Outside

with

ABSOLUTE ACID-RESISTING WHITE LINING

¶ Our splendid factory organization, modern equipment, personal supervision and exclusive processes guarantee a beauty of finish and superiority of quality second to none.

¶ Complete stock on hand. Prompt shipments guaranteed.

Every Article Warranted

¶ Catalogue and Price List furnished on request.

The Atlantic Stamping Company

Rochester, N. Y., U. S. A.

Community Galvanized Sash Chain

COMMUNITY Galvanized Sash Chain is made from the best quality of rolled steel stock; punched and made and galvanized on special machinery of our own manufacture. Community Sash has a higher tensile strength per square inch of cross section and a higher fusing point than bronze, copper or any of the alloys used in the manufacture of other sash chains. Our chains will not stretch or melt at temperatures that will melt chains made of other metals, and they will remain in place after the most severe fire tests.

¶ We have standardized the numbers of our Sash Chain to correspond with the weight of double hung sash that they will safely carry.

No. 80	**for sash**	**weighing**		**80 lbs.**
No. 100	"	"	"	**100 lbs.**
No. 130	"	"	"	**130 lbs.**

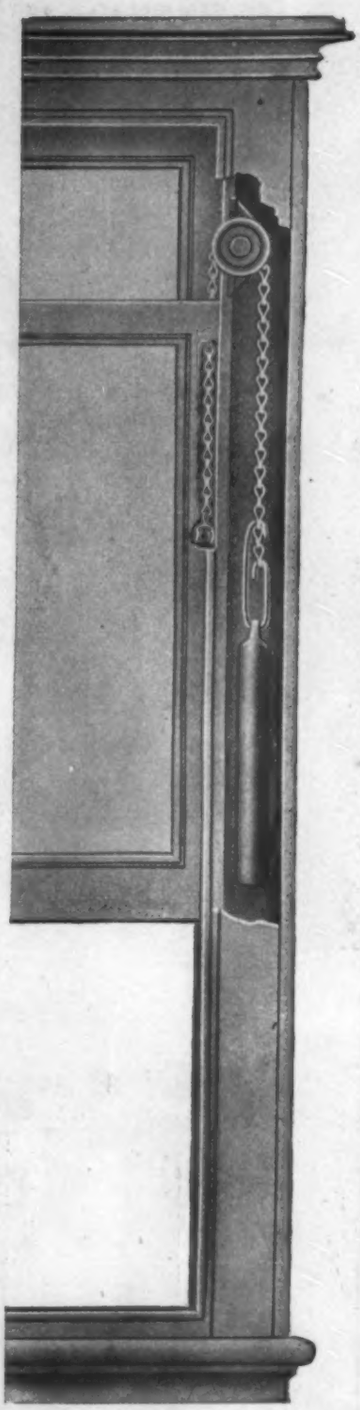
¶ Tensile strength more than six times that required.

¶ Send for samples and prices.

ONEIDA COMMUNITY,

LIMITED

ONEIDA, NEW YORK



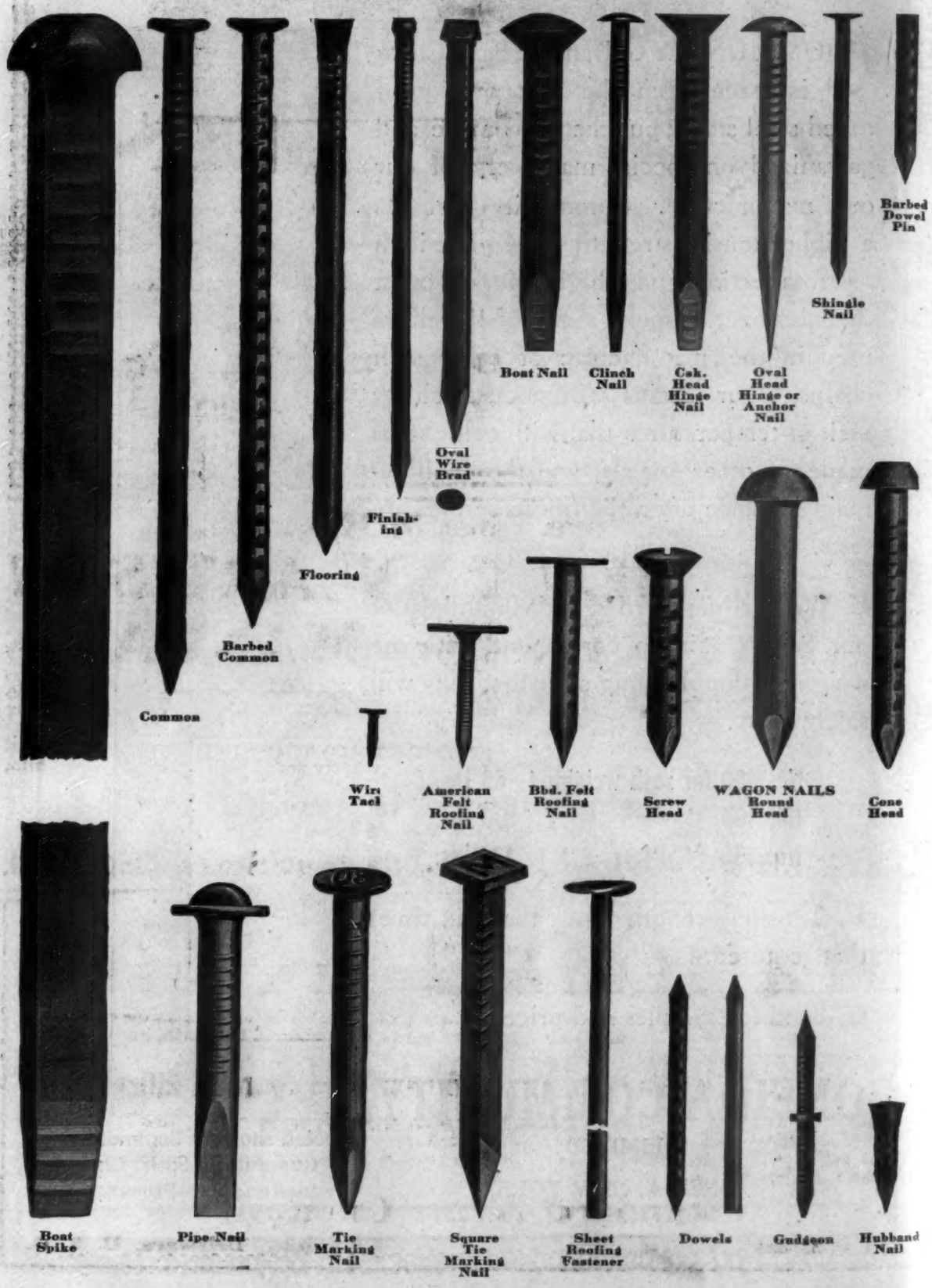
Detail showing Community Guaranteed Sash Chain used on a Fire-Proof Sash.

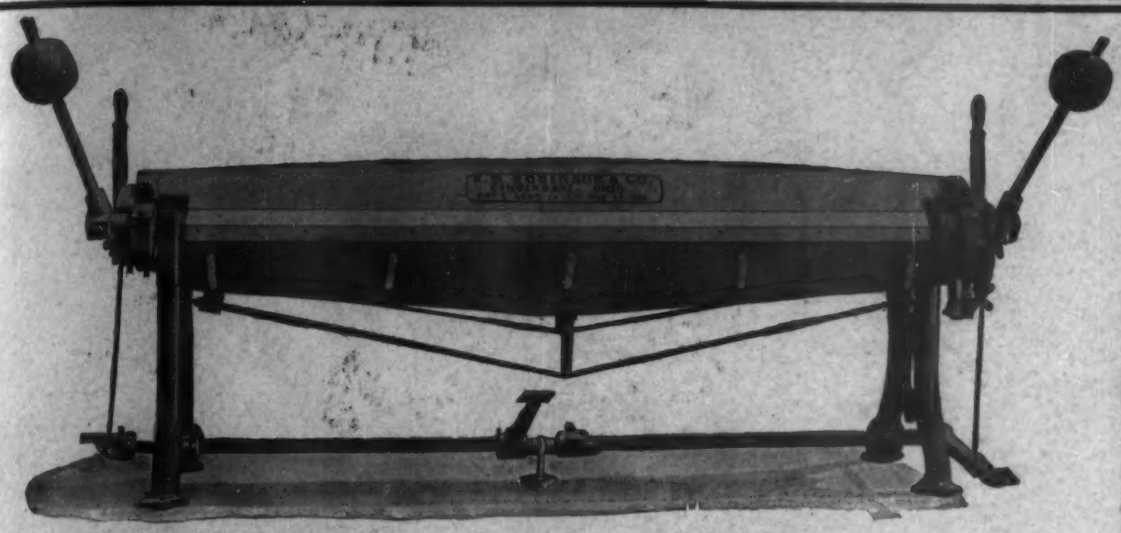
American Steel & Wire Co.

Chicago New York Denver San Francisco

Maker of

NAILS, SPIKES, TACKS





The above cut shows the general design of our Cornice Brake. These Machines are guaranteed for No. 20 Gauge material and lighter, and with Heavy Bending Attachment for No. 18 Gauge. With each brake is furnished 2½-inch, 2-inch, 1½-inch and 1¼-inch wood formers, and 1-inch, ⅞-inch and ¾-inch iron forms, also friction clamps for holding same. All machines are fitted with foot treadles, quadrant gauge and three quadrant stops.

WRITE FOR CIRCULAR.

The J. M. Robinson Mfg. Co.

SHEET METAL WORKING MACHINERY

Spring Grove Avenue **Cincinnati, Ohio**

Every Store Should Have One!

THE AMERICAN ARTISAN ADVERTISING MANUAL

Retail merchants are to-day doing more advertising than ever before. They are doing better advertising also. With a little assistance most retail dealers could prepare very effective advertisements. To supply this assistance is the mission of this volume.

It contains 278 pages and 228 illustrations of advertisements which have actually appeared in newspapers. It contains innumerable hints, suggestions and helps that every dealer will find valuable. It is brim full of information for those who prepare their own advertisements.

Every merchant should secure a copy. **The Price is $3.50 Per Copy.**

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Standard Rifles

The new manufacturer, placing a new article on the market, to insure sales and attract the consumer's attention **must produce better and more attractive goods than kindred lines with an established reputation.** In the

Standard Gas-Operated, Automatic and Hand-Operated Rifles—

we have produced such, and—There's a Reason—They are the **latest** and **best** of anything in their class. These rifles must be seen to be appreciated and all who have had the pleasure of shooting them report—**"The Best Ever."** Any up-to-date jobber will be able to supply the trade after June 1st, 1909. Advance catalog now ready.

Standard Arms Company

133 F Street **Wilmington, Delaware, U. S. A.**

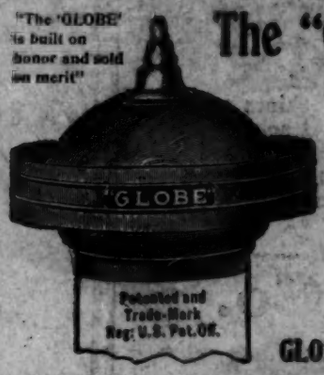
PER. NOT ENT'D.

THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size and bead, and has the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit"



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF
For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character
SMOKY CHIMNEYS CURED
"GLOBE VENTILATED RIDGING"
Send for Pamphlet
MANUFACTURED BY
GLOBE VENTILATOR CO., Troy, N. Y.

STAY-IN Flue Stoppers

are **guaranteed** to be absolutely soot proof. Cannot be jarred or blown from the flue hole.

Finished in Brass and Nicely Decorated

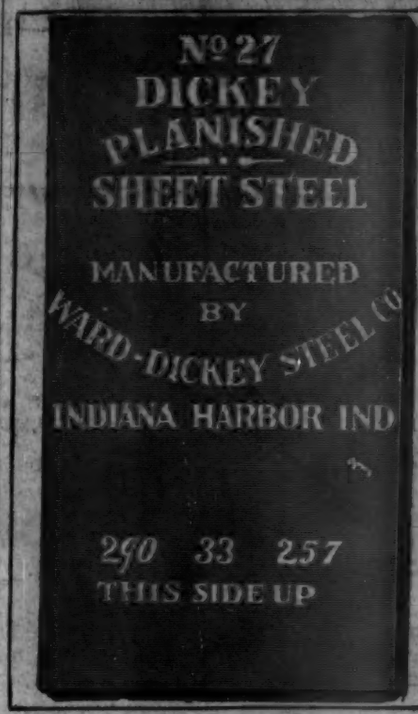
MANUFACTURED BY
STUBER & KUCK, Peoria, Ill.
We Also Manufacture PIECED TINWARE and All Styles of FLOUR SIFTERS

TRADE MARK
SCOTT'S
IC
EXTRA COATED
REGISTERED
HAMMERED
OPEN HEARTH
ROOFING TIN

The Kind Your Daddies Used

MADE IN THE OLD WELSH WAY

FOLLANSBEE BROTHERS CO.
PITTSBURGH



Dickey Planished Sheet Steel

This Steel is Harm... Polished. It has the ... ported Russia Iron fin...

It stamps and w... finely, without breaki... or destroying the fin... Our Steel

Stands the He... Retains its Co...

Under long and ... heats it proves ... superiority over ... others.

Users say:
"It works like copp... never breaks." Se... for Circular and pri...

A HANDSOME PROFIT

can be made on every item of our justly celebrated

Enameled Ware,
Tin Ware,
Japanned Ware
and Galvanized Ware.

This Water Pail ... only one of our line ... many salable goods ... consisting in all ...

OVER 500 FAST SELLING ITEMS
Star Enameling & Stamping Co., PITTSBURGH, PA.

Drink Pure Water

The No. 50 Star Pump shown here will pe... tively purify the water in any well or cistern in ... short time.

This purifying feature alone makes it the on... pump fit to put in any well where the water ... used for household purposes, for it will sa... save its cost in the doctor's bill many times ov...

As it is made of No. 24 gauge galvanized iron ... is a very substantial and handsome outfit, an... will last for years.

Our line of purifying pumps is very complet... So is our line of Galvanized Chain Pump Cu... and Tubing.

Ask your jobber for Star Pumps.

Star Bucket Pump Co.
ST. LOUIS, MO.

YALE
Russia finish, pat. Lock
STOVE PIPE

It is made of a very high grade of uniform color Blue Polished Steel and is coated to prevent rusting. Made in all sizes. Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States. Mfg. by HEMP & CO. 22nd and Chouteau Ave., ST. LOUIS. In the event your jobber does not handle this pipe, send your inquiries to us.

The "CENTENNIAL"
RAIN - WATER - CUT - OFF

The strongest, most durable and cheapest CUT-OFF on the market.

The only single cut-off made to fit Corrugated and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

Manufactured only by
The Sullivan-Geiger Co.
19 & 21 E. South Street, Indianapolis, In...